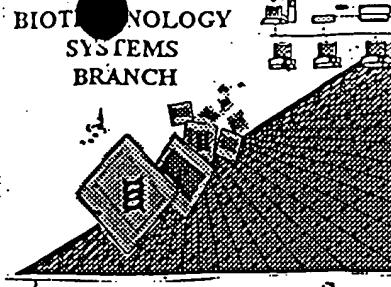


M / M
0300

RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/988,384

Source: OIPE

Date Processed by STIC: 11/26/01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).

Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/988,384

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHIA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleic
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:27

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

Does Not Comply
Corrected Diskette Needed

4 <110> APPLICANT: Regents of the University of Minnesota, et al.
6 <120> TITLE OF INVENTION: DNA encoding methymycin and pikromycin
9 <130> FILE REFERENCE: 600.438W01
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/988,384
C--> 11 <141> CURRENT FILING DATE: 2001-11-19
11 <150> PRIOR APPLICATION NUMBER: US 09/105,537
12 <151> PRIOR FILING DATE: 1998-06-26
14 <160> NUMBER OF SEQ ID NOS: 53
16 <170> SOFTWARE: FastSEQ for Windows Version 3.0

Errors on p. 27-

ERRORED SEQUENCES

2294 <210> SEQ ID NO: 6
2295 <211> LENGTH: 12199
2296 <212> TYPE: PRT
2297 <213> ORGANISM: Streptomyces venezuelae
2299 <400> SEQUENCE: 6
2300 Met Ala Phe Ser Pro Gln Gly Gly Arg His Glu Leu Gly Gln Asn Phe
2301 1 5 10 15
2302 Leu Val Asp Arg Ser Val Ile Asp Glu Ile Asp Gly Leu Val Ala Arg
2303 20 25 30
2304 Thr Lys Gly Pro Ile Leu Glu Ile Gly Pro Gly Asp Gly Ala Leu Thr
2305 35 40 45
2306 Leu Pro Leu Ser Arg His Gly Arg Pro Ile Thr Ala Val Glu Leu Asp
2307 50 55 60
2308 Gly Arg Arg Ala Gln Arg Leu Gly Ala Arg Thr Pro Gly His Val Thr
2309 65 70 75 80
2310 Val Val His His Asp Phe Leu Gln Tyr Pro Leu Pro Arg Asn Pro His
2311 85 90 95
2312 Val Val Val Gly Asn Val Pro Phe His Leu Thr Thr Ala Ile Met Arg
2313 100 105 110
2314 Arg Leu Leu Asp Ala Gln His Trp His Thr Ala Val Leu Leu Val Gln
2315 115 120 125
2316 Trp Glu Val Ala Arg Arg Ala Gly Val Gly Gly Ser Thr Leu Leu
2317 130 135 140
2318 Thr Ala Gly Trp Ala Pro Trp Tyr Glu Phe Asp Leu His Ser Arg Val
2319 145 150 155 160
2320 Pro Ala Arg Ala Phe Arg Pro Met Pro Gly Val Asp Gly Gly Val Leu
2321 165 170 175
2322 Ala Ile Arg Arg Arg Ser Ala Pro Leu Val Gly Gln Val Lys Thr Tyr
2323 180 185 190
2324 Gln Asp Phe Val Arg Gln Val Phe Thr Gly Lys Gly Asn Gly Leu Lys
2325 195 200 205
2326 Glu Ile Leu Arg Arg Thr Gly Arg Ile Ser Gln Arg Asp Leu Ala Thr
2327 210 215 220
2328 Trp Leu Arg Arg Asn Glu Ile Ser Pro His Ala Leu Pro Lys Asp Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

2329	225	230	235	240
2330	Lys Pro Gly Gln Trp Ala Ser Leu Trp Glu Leu Thr Gly Gly Thr Ala			
2331	245	250	255	
2332	Asp Gly Ser Phe Asp Gly Thr Ala Gly Gly Ala Ala Gly Ser His			
2333	260	265	270	
2334	Gly Ala Ala Arg Val Gly Ala Gly His Pro Gly Gly Arg Val Ser Ala			
2335	275	280	285	
2336	Ser Arg Arg Gly Val Pro Gln Ala Arg Arg Gly Arg Gly His Ala Val			
2337	290	295	300	
2338	Arg Ser Ser Thr Gly Thr Glu Pro Arg Trp Gly Arg Gly Arg Ala Glu			
2339	305	310	315	320
2340	Ser Ala Met Ala Met Arg Asp Ser Ile Pro Arg Arg Ala Asp Arg Asp			
2341	325	330	335	
2342	Thr Leu Arg Arg Glu Leu Gly Gln Asn Phe Leu Gln Asp Asp Arg Ala			
2343	340	345	350	
2344	Val Arg Asn Leu Val Thr His Val Glu Gly Asp Gly Arg Asn Val Leu			
2345	355	360	365	
2346	Glu Ile Gly Pro Gly Lys Gly Ala Ile Thr Glu Glu Leu Val Arg Ser			
2347	370	375	380	
2348	Phe Asp Thr Val Thr Val Val Glu Met Asp Pro His Trp Ala Ala His			
2349	385	390	395	400
2350	Val Arg Arg Lys Phe Glu Gly Glu Arg Val Thr Val Phe Gln Gly Asp			
2351	405	410	415	
2352	Phe Leu Asp Phe Arg Ile Pro Arg Asp Ile Asp Thr Val Val Gly Asn			
2353	420	425	430	
2354	Val Pro Phe Gly Ile Thr Thr Gln Ile Leu Arg Ser Leu Leu Glu Ser			
2355	435	440	445	
2356	Thr Asn Trp Gln Ser Ala Ala Leu Ile Val Gln Trp Glu Val Ala Arg			
2357	450	455	460	
2358	Lys Arg Ala Gly Arg Ser Gly Gly Ser Leu Leu Thr Thr Ser Trp Ala			
2359	465	470	475	480
2360	Pro Trp Tyr Glu Phe Ala Val His Asp Arg Val Arg Ala Ser Ser Phe			
2361	485	490	495	
2362	Arg Pro Met Pro Arg Val Asp Gly Gly Val Leu Thr Ile Arg Arg Arg			
2363	500	505	510	
2364	Pro Gln Pro Leu Leu Pro Glu Ser Ala Ser Arg Ala Phe Gln Asn Phe			
2365	515	520	525	
2366	Ala Glu Ala Val Phe Thr Gly Pro Gly Arg Gly Leu Ala Glu Ile Leu			
2367	530	535	540	
2368	Arg Arg His Ile Pro Lys Arg Thr Tyr Arg Ser Leu Ala Asp Arg His			
2369	545	550	555	560
2370	Gly Ile Pro Asp Gly Gly Leu Pro Lys Asp Leu Thr Leu Thr Gln Trp			
2371	565	570	575	
2372	Ile Ala Leu Phe Gln Ala Ser Gln Pro Ser Tyr Ala Pro Gly Ala Pro			
2373	580	585	590	
2374	Gly Thr Arg Met Pro Gly Gln Gly Gly Ala Gly Gly Arg Asp Tyr			
2375	595	600	605	
2376	Asp Ser Glu Thr Ser Arg Ala Ala Val Pro Gly Ser Arg Arg Tyr Gly			
2377	610	615	620	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

2378 Pro Thr Arg Gly Gly Glu Pro Cys Ala Pro Arg Ala Gln Val Arg Gln
 2379 625 630 635 640
 2380 Thr Lys Gly Arg Gln Gly Ala Arg Gly Ser Ser Tyr Gly Arg Arg Thr
 2381 645 650 655
 2382 Gly Arg Met Ser Ser Ala Gly Ile Thr Arg Thr Gly Ala Arg Thr Pro
 2383 660 665 670
 2384 Val Thr Gly Arg Gly Ala Ala Trp Asp Thr Gly Glu Val Arg Val
 2385 675 680 685
 2386 Arg Arg Gly Leu Pro Pro Ala Gly Pro Asp His Ala Glu His Ser Phe
 2387 690 695 700
 2388 Ser Arg Ala Pro Thr Gly Asp Val Arg Ala Glu Leu Ile Arg Gly Glu
 2389 705 710 715 720
 2390 Met Ser Thr Val Ser Lys Ser Glu Ser Glu Glu Phe Val Ser Val Ser
 2391 725 730 735
 2392 Asn Asp Ala Gly Ser Ala His Gly Thr Ala Glu Pro Val Ala Val Val
 2393 740 745 750
 2394 Gly Ile Ser Cys Arg Val Pro Gly Ala Arg Asp Pro Arg Glu Phe Trp
 2395 755 760 765
 2396 Glu Leu Leu Ala Ala Gly Gly Gln Ala Val Thr Asp Val Pro Ala Asp
 2397 770 775 780
 2398 Arg Trp Asn Ala Gly Asp Phe Tyr Asp Pro Asp Arg Ser Ala Pro Gly
 2399 785 790 795 800
 2400 Arg Ser Asn Ser Arg Trp Gly Gly Phe Ile Glu Asp Val Asp Arg Phe
 2401 805 810 815
 2402 Asp Ala Ala Phe Phe Gly Ile Ser Pro Arg Glu Ala Ala Glu Met Asp
 2403 820 825 830
 2404 Pro Gln Gln Arg Leu Ala Leu Glu Leu Gly Trp Glu Ala Leu Glu Arg
 2405 835 840 845
 2406 Ala Gly Ile Asp Pro Ser Ser Leu Thr Gly Thr Arg Thr Gly Val Phe
 2407 850 855 860
 2408 Ala Gly Ala Ile Trp Asp Asp Tyr Ala Thr Leu Lys His Arg Gln Gly
 2409 865 870 875 880
 2410 Gly Ala Ala Ile Thr Pro His Thr Val Thr Gly Leu His Arg Gly Ile
 2411 885 890 895
 2412 Ile Ala Asn Arg Leu Ser Tyr Thr Leu Gly Leu Arg Gly Pro Ser Met
 2413 900 905 910
 2414 Val Val Asp Ser Gly Gln Ser Ser Leu Val Ala Val His Leu Ala
 2415 915 920 925
 2416 Cys Glu Ser Leu Arg Arg Gly Glu Ser Glu Leu Ala Leu Ala Gly Gly
 2417 930 935 940
 2418 Val Ser Leu Asn Leu Val Pro Asp Ser Ile Ile Gly Ala Ser Lys Phe
 2419 945 950 955 960
 2420 Gly Gly Leu Ser Pro Asp Gly Arg Ala Tyr Thr Phe Asp Ala Arg Ala
 2421 965 970 975
 2422 Asn Gly Tyr Val Arg Gly Glu Gly Gly Phe Val Val Leu Lys Arg
 2423 980 985 990
 2424 Leu Ser Arg Ala Val Ala Asp Gly Asp Pro Val Leu Ala Val Ile Arg
 2425 995 1000 1005
 2426 Gly Ser Ala Val Asn Asn Gly Ala Ala Gln Gly Met Thr Thr Pro

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

2427	1010	1015	1020
2428	Asp Ala Gln Ala Gln Glu Ala Val Leu Arg Glu Ala His Glu Arg Ala		
2429	1025	1030	1035
2430	Gly Thr Ala Pro Ala Asp Val Arg Tyr Val Glu Leu His Gly Thr Gly		1040
2431	1045	1050	1055
2432	Thr Pro Val Gly Asp Pro Ile Glu Ala Ala Ala Leu Gly Ala Ala Leu		
2433	1060	1065	1070
2434	Gly Thr Gly Arg Pro Ala Gly Gln Pro Leu Leu Val Gly Ser Val Lys		
2435	1075	1080	1085
2436	Thr Asn Ile Gly His Leu Glu Gly Ala Ala Gly Ile Ala Gly Leu Ile		
2437	1090	1095	1100
2438	Lys Ala Val Leu Ala Val Arg Gly Arg Ala Leu Pro Ala Ser Leu Asn		
2439	1105	1110	1115
2440	Tyr Glu Thr Pro Asn Pro Ala Ile Pro Phe Glu Glu Leu Asn Leu Arg		1120
2441	1125	1130	1135
2442	Val Asn Thr Glu Tyr Leu Pro Trp Glu Pro Glu His Asp Gly Gln Arg		
2443	1140	1145	1150
2444	Met Val Val Gly Val Ser Ser Phe Gly Met Gly Gly Thr Asn Ala His		
2445	1155	1160	1165
2446	Val Val Leu Glu Glu Ala Pro Gly Gly Cys Arg Gly Ala Ser Val Val		
2447	1170	1175	1180
2448	Glu Ser Thr Val Gly Gly Ser Ala Val Gly Gly Val Val Pro Trp		
2449	1185	1190	1195
2450	Val Val Ser Ala Lys Ser Ala Ala Ala Leu Asp Ala Gln Ile Glu Arg		1200
2451	1205	1210	1215
2452	Leu Ala Ala Phe Ala Ser Arg Asp Arg Thr Asp Gly Val Asp Ala Gly		
2453	1220	1225	1230
2454	Ala Val Asp Ala Gly Ala Val Asp Ala Gly Ala Val Ala Arg Val Leu		
2455	1235	1240	1245
2456	Ala Gly Gly Arg Ala Gln Phe Glu His Arg Ala Val Val Gly Ser		
2457	1250	1255	1260
2458	Gly Pro Asp Asp Leu Ala Ala Leu Ala Ala Pro Glu Gly Leu Val		
2459	1265	1270	1275
2460	Arg Gly Val Ala Ser Gly Val Gly Arg Val Ala Phe Val Phe Pro Gly		1280
2461	1285	1290	1295
2462	Gln Gly Thr Gln Trp Ala Gly Met Gly Ala Glu Leu Leu Asp Ser Ser		
2463	1300	1305	1310
2464	Ala Val Phe Ala Ala Ala Met Ala Glu Cys Glu Ala Ala Leu Ser Pro		
2465	1315	1320	1325
2466	Tyr Val Asp Trp Ser Leu Glu Ala Val Val Arg Gln Ala Pro Gly Ala		
2467	1330	1335	1340
2468	Pro Thr Leu Glu Arg Val Asp Val Val Gln Pro Val Thr Phe Ala Val		
2469	1345	1350	1355
2470	Met Val Ser Leu Ala Arg Val Trp Gln His His Gly Val Thr Pro Gln		1360
2471	1365	1370	1375
2472	Ala Val Val Gly His Ser Gln Gly Glu Ile Ala Ala Ala Tyr Val Ala		
2473	1380	1385	1390
2474	Gly Ala Leu Ser Leu Asp Asp Ala Ala Arg Val Val Thr Leu Arg Ser		
2475	1395	1400	1405

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

2476 Lys Ser Ile Ala Ala His Leu Ala Gly Lys Gly Gly Met Leu Ser Leu
 2477 1410 1415 1420
 2478 Ala Leu Ser Glu Asp Ala Val Leu Glu Arg Leu Ala Gly Phe Asp Gly
 2479 1425 1430 1435 1440
 2480 Leu Ser Val Ala Ala Val Asn Gly Pro Thr Ala Thr Val Val Ser Gly
 2481 1445 1450 1455
 2482 Asp Pro Val Gln Ile Glu Glu Leu Ala Arg Ala Cys Glu Ala Asp Gly
 2483 1460 1465 1470
 2484 Val Arg Ala Arg Val Ile Pro Val Asp Tyr Ala Ser His Ser Arg Gln
 2485 1475 1480 1485
 2486 Val Glu Ile Ile Glu Ser Glu Leu Ala Glu Val Leu Ala Gly Leu Ser
 2487 1490 1495 1500
 2488 Pro Gln Ala Pro Arg Val Pro Phe Phe Ser Thr Leu Glu Gly Ala Trp
 2489 1505 1510 1515 1520
 2490 Ile Thr Glu Pro Val Leu Asp Gly Gly Tyr Trp Tyr Arg Asn Leu Arg
 2491 1525 1530 1535
 2492 His Arg Val Gly Phe Ala Pro Ala Val Glu Thr Leu Ala Thr Asp Glu
 2493 1540 1545 1550
 2494 Gly Phe Thr His Phe Val Glu Val Ser Ala His Pro Val Leu Thr Met
 2495 1555 1560 1565
 2496 Ala Leu Pro Gly Thr Val Thr Gly Leu Ala Thr Leu Arg Arg Asp Asn
 2497 1570 1575 1580
 2498 Gly Gly Gln Asp Arg Leu Val Ala Ser Leu Ala Glu Ala Trp Ala Asn
 2499 1585 1590 1595 1600
 2500 Gly Leu Ala Val Asp Trp Ser Pro Leu Leu Pro Ser Ala Thr Gly His
 2501 1605 1610 1615
 2502 His Ser Asp Leu Pro Thr Tyr Ala Phe Gln Thr Glu Arg His Trp Leu
 2503 1620 1625 1630
 2504 Gly Glu Ile Glu Ala Leu Ala Pro Ala Gly Glu Pro Ala Val Gln Pro
 2505 1635 1640 1645
 2506 Ala Val Leu Arg Thr Glu Ala Ala Glu Pro Ala Glu Leu Asp Arg Asp
 2507 1650 1655 1660
 2508 Glu Gln Leu Arg Val Ile Leu Asp Lys Val Arg Ala Gln Thr Ala Gln
 2509 1665 1670 1675 1680
 2510 Val Leu Gly Tyr Ala Thr Gly Gly Gln Ile Glu Val Asp Arg Thr Phe
 2511 1685 1690 1695
 2512 Arg Glu Ala Gly Cys Thr Ser Leu Thr Gly Val Asp Leu Arg Asn Arg
 2513 1700 1705 1710
 2514 Ile Asn Ala Ala Phe Gly Val Arg Met Ala Pro Ser Met Ile Phe Asp
 2515 1715 1720 1725
 2516 Phe Pro Thr Pro Glu Ala Leu Ala Glu Gln Leu Leu Leu Val Val His
 2517 1730 1735 1740
 2518 Gly Glu Ala Ala Ala Asn Pro Ala Gly Ala Glu Pro Ala Pro Val Ala
 2519 1745 1750 1755 1760
 2520 Ala Ala Gly Ala Val Asp Glu Pro Val Ala Ile Val Gly Met Ala Cys
 2521 1765 1770 1775
 2522 Arg Leu Pro Gly Gly Val Ala Ser Pro Glu Asp Leu Trp Arg Leu Val
 2523 1780 1785 1790
 2524 Ala Gly Gly Asp Ala Ile Ser Glu Phe Pro Gln Asp Arg Gly Trp

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

2525	1795	1800	1805
2526	Asp Val Glu Gly Leu Tyr His Pro Asp Pro Glu His Pro Gly Thr Ser		
2527	1810	1815	1820
2528	Tyr Val Arg Gln Gly Gly Phe Ile Glu Asn Val Ala Gly Phe Asp Ala		
2529	1825	1830	1835
2530	Ala Phe Phe Gly Ile Ser Pro Arg Glu Ala Leu Ala Met Asp Pro Gln		1840
2531	1845	1850	1855
2532	Gln Arg Leu Leu Leu Glu Thr Ser Trp Glu Ala Val Glu Asp Ala Gly		
2533	1860	1865	1870
2534	Ile Asp Pro Thr Ser Leu Arg Gly Arg Gln Val Gly Val Phe Thr Gly		
2535	1875	1880	1885
2536	Ala Met Thr His Glu Tyr Gly Pro Ser Leu Arg Asp Gly Gly Glu Gly		
2537	1890	1895	1900
2538	Leu Asp Gly Tyr Leu Leu Thr Gly Asn Thr Ala Ser Val Met Ser Gly		
2539	1905	1910	1915
2540	Arg Val Ser Tyr Thr Leu Gly Leu Glu Gly Pro Ala Leu Thr Val Asp		1920
2541	1925	1930	1935
2542	Thr Ala Cys Ser Ser Ser Leu Val Ala Leu His Leu Ala Val Gln Ala		
2543	1940	1945	1950
2544	Leu Arg Lys Gly Glu Val Asp Met Ala Leu Ala Gly Gly Val Ala Val		
2545	1955	1960	1965
2546	Met Pro Thr Pro Gly Met Phe Val Glu Phe Ser Arg Gln Arg Gly Leu		
2547	1970	1975	1980
2548	Ala Gly Asp Gly Arg Ser Lys Ala Phe Ala Ala Ser Ala Asp Gly Thr		
2549	1985	1990	1995
2550	2000		
2551	Ser Trp Ser Glu Gly Val Gly Val Leu Leu Val Glu Arg Leu Ser Asp		
2552	2005	2010	2015
2553	Ala Arg Arg Asn Gly His Gln Val Leu Ala Val Val Arg Gly Ser Ala		
2554	2020	2025	2030
2555	Leu Asn Gln Asp Gly Ala Ser Asn Gly Leu Thr Ala Pro Asn Gly Pro		
2556	2035	2040	2045
2557	Ser Gln Gln Arg Val Ile Arg Arg Ala Leu Ala Asp Ala Arg Leu Thr		
2558	2050	2055	2060
2559	Thr Ser Asp Val Asp Val Val Glu Ala His Gly Thr Gly Thr Arg Leu		
2560	2065	2070	2075
2561	2080		
2562	Gly Asp Pro Ile Glu Ala Gln Ala Leu Ile Ala Thr Tyr Gly Gln Gly		
2563	2085	2090	2095
2564	Arg Asp Asp Glu Gln Pro Leu Arg Leu Gly Ser Leu Lys Ser Asn Ile		
2565	2100	2105	2110
2566	Gly His Thr Gln Ala Ala Ala Gly Val Ser Gly Val Ile Lys Met Val		
2567	2115	2120	2125
2568	Gln Ala Met Arg His Gly Leu Leu Pro Lys Thr Leu His Val Asp Glu		
2569	2130	2135	2140
2570	Pro Ser Asp Gln Ile Asp Trp Ser Ala Gly Ala Val Glu Leu Leu Thr		
2571	2145	2150	2155
2572	Glu Ala Val Asp Trp Pro Glu Lys Gln Asp Gly Gly Leu Arg Arg Ala		2160
2573	2165	2170	2175
	Ala Val Ser Ser Phe Gly Ile Ser Gly Thr Asn Ala His Val Val Leu		
	2180	2185	2190

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

2574	Glu Glu Ala Pro Val Val Val Glu Gly Ala Ser Val Val Glu Pro Ser			
2575	2195	2200	2205	
2576	Val Gly Gly Ser Ala Val Gly Gly Gly Val Thr Pro Trp Val Val Ser			
2577	2210	2215	2220	
2578	Ala Lys Ser Ala Ala Ala Leu Asp Ala Gln Ile Glu Arg Leu Ala Ala			
2579	2225	2230	2235	2240
2580	Phe Ala Ser Arg Asp Arg Thr Asp Asp Ala Asp Ala Gly Ala Val Asp			
2581	2245	2250	2255	
2582	Ala Gly Ala Val Ala His Val Leu Ala Asp Gly Arg Ala Gln Phe Glu			
2583	2260	2265	2270	
2584	His Arg Ala Val Ala Leu Gly Ala Gly Ala Asp Asp Leu Val Gln Ala			
2585	2275	2280	2285	
2586	Leu Ala Asp Pro Asp Gly Leu Ile Arg Gly Thr Ala Ser Gly Val Gly			
2587	2290	2295	2300	
2588	Arg Val Ala Phe Val Phe Pro Gly Gln Gly Thr Gln Trp Ala Gly Met			
2589	2305	2310	2315	2320
2590	Gly Ala Glu Leu Leu Asp Ser Ser Ala Val Phe Ala Ala Ala Met Ala			
2591	2325	2330	2335	
2592	Glu Cys Glu Ala Ala Leu Ser Pro Tyr Val Asp Trp Ser Leu Glu Ala			
2593	2340	2345	2350	
2594	Val Val Arg Gln Ala Pro Gly Ala Pro Thr Leu Glu Arg Val Asp Val			
2595	2355	2360	2365	
2596	Val Gln Pro Val Thr Phe Ala Val Met Val Ser Leu Ala Arg Val Trp			
2597	2370	2375	2380	
2598	Gln His His Gly Val Thr Pro Gln Ala Val Val Gly His Ser Gln Gly			
2599	2385	2390	2395	2400
2600	Glu Ile Ala Ala Ala Tyr Val Ala Gly Ala Leu Pro Leu Asp Asp Ala			
2601	2405	2410	2415	
2602	Ala Arg Val Val Thr Leu Arg Ser Lys Ser Ile Ala Ala His Leu Ala			
2603	2420	2425	2430	
2604	Gly Lys Gly Gly Met Leu Ser Leu Ala Leu Asn Glu Asp Ala Val Leu			
2605	2435	2440	2445	
2606	Glu Arg Leu Ser Asp Phe Asp Gly Leu Ser Val Ala Ala Val Asn Gly			
2607	2450	2455	2460	
2608	Pro Thr Ala Thr Val Val Ser Gly Asp Pro Val Gln Ile Glu Glu Leu			
2609	2465	2470	2475	2480
2610	Ala Gln Ala Cys Lys Ala Asp Gly Phe Arg Ala Arg Ile Ile Pro Val			
2611	2485	2490	2495	
2612	Asp Tyr Ala Ser His Ser Arg Gln Val Glu Ile Ile Glu Ser Glu Leu			
2613	2500	2505	2510	
2614	Ala Gln Val Leu Ala Gly Leu Ser Pro Gln Ala Pro Arg Val Pro Phe			
2615	2515	2520	2525	
2616	Phe Ser Thr Leu Glu Gly Thr Trp Ile Thr Glu Pro Val Leu Asp Gly			
2617	2530	2535	2540	
2618	Thr Tyr Trp Tyr Arg Asn Leu Arg His Arg Val Gly Phe Ala Pro Ala			
2619	2545	2550	2555	2560
2620	Ile Glu Thr Leu Ala Val Asp Glu Gly Phe Thr His Phe Val Glu Val			
2621	2565	2570	2575	
2622	Ser Ala His Pro Val Leu Thr Met Thr Leu Pro Glu Thr Val Thr Gly			

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Input Set : A:\Sequence Listing.txt
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2623	2580	2585	2590
2624	Leu Gly Thr Leu Arg Arg Glu Gln Gly Gly Gln Glu Arg	Leu Val Thr	
2625	2595	2600	2605
2626	Ser Leu Ala Glu Ala Trp Val Asn Gly Leu Pro Val Ala Trp Thr Ser		
2627	2610	2615	2620
2628	Leu Leu Pro Ala Thr Ala Ser Arg Pro Gly Leu Pro Thr Tyr Ala Phe		
2629	2625	2630	2635
2630	Gln Ala Glu Arg Tyr Trp Leu Glu Asn Thr Pro Ala Ala Leu Ala Thr		
2631	2645	2650	2655
2632	Gly Asp Asp Trp Arg Tyr Arg Ile Asp Trp Lys Arg Leu Pro Ala Ala		
2633	2660	2665	2670
2634	Glu Gly Ser Glu Arg Thr Gly Leu Ser Gly Arg Trp Leu Ala Val Thr		
2635	2675	2680	2685
2636	Pro Glu Asp His Ser Ala Gln Ala Ala Ala Val Leu Thr Ala Leu Val		
2637	2690	2695	2700
2638	Asp Ala Gly Ala Lys Val Glu Val Leu Thr Ala Gly Ala Asp Asp Asp		
2639	2705	2710	2715
2640	Arg Glu Ala Leu Ala Ala Arg Leu Thr Ala Leu Thr Thr Gly Asp Gly		
2641	2725	2730	2735
2642	Phe Thr Gly Val Val Ser Leu Leu Asp Gly Leu Val Pro Gln Val Ala		
2643	2740	2745	2750
2644	Trp Val Gln Ala Leu Gly Asp Ala Gly Ile Lys Ala Pro Leu Trp Ser		
2645	2755	2760	2765
2646	Val Thr Gln Gly Ala Val Ser Val Gly Arg Leu Asp Thr Pro Ala Asp		
2647	2770	2775	2780
2648	Pro Asp Arg Ala Met Leu Trp Gly Leu Gly Arg Val Val Ala Leu Glu		
2649	2785	2790	2795
2650	His Pro Glu Arg Trp Ala Gly Leu Val Asp Leu Pro Ala Gln Pro Asp		
2651	2805	2810	2815
2652	Ala Ala Ala Leu Ala His Leu Val Thr Ala Leu Ser Gly Ala Thr Gly		
2653	2820	2825	2830
2654	Glu Asp Gln Ile Ala Ile Arg Thr Thr Gly Leu His Ala Arg Arg Leu		
2655	2835	2840	2845
2656	Ala Arg Ala Pro Leu His Gly Arg Arg Pro Thr Arg Asp Trp Gln Pro		
2657	2850	2855	2860
2658	His Gly Thr Val Leu Ile Thr Gly Gly Thr Gly Ala Leu Gly Ser His		
2659	2865	2870	2875
2660	Ala Ala Arg Trp Met Ala His His Gly Ala Glu His Leu Leu Leu Val		
2661	2885	2890	2895
2662	Ser Arg Ser Gly Glu Gln Ala Pro Gly Ala Thr Gln Leu Thr Ala Glu		
2663	2900	2905	2910
2664	Leu Thr Ala Ser Gly Ala Arg Val Thr Ile Ala Ala Cys Asp Val Ala		
2665	2915	2920	2925
2666	Asp Pro His Ala Met Arg Thr Leu Leu Asp Ala Ile Pro Ala Glu Thr		
2667	2930	2935	2940
2668	Pro Leu Thr Ala Val Val His Thr Ala Gly Ala Leu Asp Asp Gly Ile		
2669	2945	2950	2955
2670	Val Asp Thr Leu Thr Ala Glu Gln Val Arg Arg Ala His Arg Ala Lys		
2671	2965	2970	2975

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Input Set : A:\Sequence Listing.txt
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2672	Ala Val Gly Ala Ser Val Leu Asp Glu Leu Thr Arg Asp Leu Asp Leu			
2673	2980	2985	2990	
2674	Asp Ala Phe Val Leu Phe Ser Ser Val Ser Ser Thr Leu Gly Ile Pro			
2675	2995	3000	3005	
2676	Gly Gln Gly Asn Tyr Ala Pro His Asn Ala Tyr Leu Asp Ala Leu Ala			
2677	3010	3015	3020	
2678	Ala Arg Arg Arg Ala Thr Gly Arg Ser Ala Val Ser Val Ala Trp Gly			
2679	3025	3030	3035	3040
2680	Pro Trp Asp Gly Gly Met Ala Ala Gly Asp Gly Val Ala Glu Arg			
2681	3045	3050	3055	
2682	Leu Arg Asn His Gly Val Pro Gly Met Asp Pro Glu Leu Ala Leu Ala			
2683	3060	3065	3070	
2684	Ala Leu Glu Ser Ala Leu Gly Arg Asp Glu Thr Ala Ile Thr Val Ala			
2685	3075	3080	3085	
2686	Asp Ile Asp Trp Asp Arg Phe Tyr Leu Ala Tyr Ser Ser Gly Arg Pro			
2687	3090	3095	3100	
2688	Gln Pro Leu Val Glu Glu Leu Pro Glu Val Arg Arg Ile Ile Asp Ala			
2689	3105	3110	3115	3120
2690	Arg Asp Ser Ala Thr Ser Gly Gln Gly Gly Ser Ser Ala Gln Gly Ala			
2691	3125	3130	3135	
2692	Asn Pro Leu Ala Glu Arg Leu Ala Ala Ala Pro Gly Glu Arg Thr			
2693	3140	3145	3150	
2694	Glu Ile Leu Leu Gly Leu Val Arg Ala Gln Ala Ala Ala Val Leu Arg			
2695	3155	3160	3165	
2696	Met Arg Ser Pro Glu Asp Val Ala Ala Asp Arg Ala Phe Lys Asp Ile			
2697	3170	3175	3180	
2698	Gly Phe Asp Ser Leu Ala Gly Val Glu Leu Arg Asn Arg Leu Thr Arg			
2699	3185	3190	3195	3200
2700	Ala Thr Gly Leu Gln Leu Pro Ala Thr Leu Val Phe Asp His Pro Thr			
2701	3205	3210	3215	
2702	Pro Leu Ala Leu Val Ser Leu Leu Arg Ser Glu Phe Leu Gly Asp Glu			
2703	3220	3225	3230	
2704	Glu Thr Ala Asp Ala Arg Arg Ser Ala Ala Leu Pro Ala Thr Val Gly			
2705	3235	3240	3245	
2706	Ala Gly Ala Gly Ala Gly Thr Asp Ala Asp Asp Asp Pro Ile			
2707	3250	3255	3260	
2708	Ala Ile Val Ala Met Ser Cys Arg Tyr Pro Gly Asp Ile Arg Ser Pro			
2709	3265	3270	3275	3280
2710	Glu Asp Leu Trp Arg Met Leu Ser Glu Gly Gly Glu Gly Ile Thr Pro			
2711	3285	3290	3295	
2712	Phe Pro Thr Asp Arg Gly Trp Asp Leu Asp Gly Leu Tyr Asp Ala Asp			
2713	3300	3305	3310	
2714	Pro Asp Ala Leu Gly Arg Ala Tyr Val Arg Glu Gly Gly Phe Leu His			
2715	3315	3320	3325	
2716	Asp Ala Ala Glu Phe Asp Ala Glu Phe Phe Gly Val Ser Pro Arg Glu			
2717	3330	3335	3340	
2718	Ala Leu Ala Met Asp Pro Gln Gln Arg Met Leu Leu Thr Thr Ser Trp			
2719	3345	3350	3355	3360
2720	Glu Ala Phe Glu Arg Ala Gly Ile Glu Pro Ala Ser Leu Arg Gly Ser			

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Input Set : A:\Sequence Listing.txt
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2721	3365	3370	3375	
2722	Ser Thr Gly Val Phe Ile Gly Leu Ser Tyr Gln Asp Tyr Ala Ala Arg			
2723	3380	3385	3390	
2724	Val Pro Asn Ala Pro Arg Gly Val Glu Gly Tyr Leu Leu Thr Gly Ser			
2725	3395	3400	3405	
2726	Thr Pro Ser Val Ala Ser Gly Arg Ile Ala Tyr Thr Phe Gly Leu Glu			
2727	3410	3415	3420	
2728	Gly Pro Ala Thr Thr Val Asp Thr Ala Cys Ser Ser Ser Leu Thr Ala			
2729	3425	3430	3435	3440
2730	Leu His Leu Ala Val Arg Ala Leu Arg Ser Gly Glu Cys Thr Met Ala			
2731	3445	3450	3455	
2732	Leu Ala Gly Gly Val Ala Met Met Ala Thr Pro His Met Phe Val Glu			
2733	3460	3465	3470	
2734	Phe Ser Arg Gln Arg Ala Leu Ala Pro Asp Gly Arg Ser Lys Ala Phe			
2735	3475	3480	3485	
2736	Ser Ala Asp Ala Asp Gly Phe Gly Ala Ala Glu Gly Val Gly Leu Leu			
2737	3490	3495	3500	
2738	Leu Val Glu Arg Leu Ser Asp Ala Arg Arg Asn Gly His Pro Val Leu			
2739	3505	3510	3515	3520
2740	Ala Val Val Arg Gly Thr Ala Val Asn Gln Asp Gly Ala Ser Asn Gly			
2741	3525	3530	3535	
2742	Leu Thr Ala Pro Asn Gly Pro Ser Gln Gln Arg Val Ile Arg Gln Ala			
2743	3540	3545	3550	
2744	Leu Ala Asp Ala Arg Leu Ala Pro Gly Asp Ile Asp Ala Val Glu Thr			
2745	3555	3560	3565	
2746	His Gly Thr Gly Thr Ser Leu Gly Asp Pro Ile Glu Ala Gln Gly Leu			
2747	3570	3575	3580	
2748	Gln Ala Thr Tyr Gly Lys Glu Arg Pro Ala Glu Arg Pro Leu Ala Ile			
2749	3585	3590	3595	3600
2750	Gly Ser Val Lys Ser Asn Ile Gly His Thr Gln Ala Ala Ala Gly Ala			
2751	3605	3610	3615	
2752	Ala Gly Ile Ile Lys Met Val Leu Ala Met Arg His Gly Thr Leu Pro			
2753	3620	3625	3630	
2754	Lys Thr Leu His Ala Asp Glu Pro Ser Pro His Val Asp Trp Ala Asn			
2755	3635	3640	3645	
2756	Ser Gly Leu Ala Leu Val Thr Glu Pro Ile Asp Trp Pro Ala Gly Thr			
2757	3650	3655	3660	
2758	Gly Pro Arg Arg Ala Ala Val Ser Ser Phe Gly Ile Ser Gly Thr Asn			
2759	3665	3670	3675	3680
2760	Ala His Val Val Leu Glu Gln Ala Pro Asp Ala Ala Gly Glu Val Leu			
2761	3685	3690	3695	
2762	Gly Ala Asp Glu Val Pro Glu Val Ser Glu Thr Val Ala Met Ala Gly			
2763	3700	3705	3710	
2764	Thr Ala Gly Thr Ser Glu Val Ala Glu Gly Ser Glu Ala Ser Glu Ala			
2765	3715	3720	3725	
2766	Pro Ala Ala Pro Gly Ser Arg Glu Ala Ser Leu Pro Gly His Leu Pro			
2767	3730	3735	3740	
2768	Trp Val Leu Ser Ala Lys Asp Glu Gln Ser Leu Arg Gly Gln Ala Ala			
2769	3745	3750	3755	3760

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Input Set : A:\Sequence Listing.txt
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2770 Ala Leu His Ala Trp Leu Ser Glu Pro Ala Ala Asp Leu Ser Asp Ala
 2771 3765 3770 3775
 2772 Asp Gly Pro Ala Arg Leu Arg Asp Val Gly Tyr Thr Leu Ala Thr Ser
 2773 3780 3785 3790
 2774 Arg Thr Ala Phe Ala His Arg Ala Ala Val Thr Ala Ala Asp Arg Asp
 2775 3795 3800 3805
 2776 Gly Phe Leu Asp Gly Leu Ala Thr Leu Ala Gln Gly Gly Thr Ser Ala
 2777 3810 3815 3820
 2778 His Val His Leu Asp Thr Ala Arg Asp Gly Thr Thr Ala Phe Leu Phe
 2779 3825 3830 3835 3840
 2780 Thr Gly Gln Gly Ser Gln Arg Pro Gly Ala Gly Arg Glu Leu Tyr Asp
 2781 3845 3850 3855
 2782 Arg His Pro Val Phe Ala Arg Ala Leu Asp Glu Ile Cys Ala His Leu
 2783 3860 3865 3870
 2784 Asp Gly His Leu Glu Leu Pro Leu Leu Asp Val Met Phe Ala Ala Glu
 2785 3875 3880 3885
 2786 Gly Ser Ala Glu Ala Ala Leu Leu Asp Glu Thr Arg Tyr Thr Gln Cys
 2787 3890 3895 3900
 2788 Ala Leu Phe Ala Leu Glu Val Ala Leu Phe Arg Leu Val Glu Ser Trp
 2789 3905 3910 3915 3920
 2790 Gly Met Arg Pro Ala Ala Leu Leu Gly His Ser Val Gly Glu Ile Ala
 2791 3925 3930 3935
 2792 Ala Ala His Val Ala Gly Val Phe Ser Leu Ala Asp Ala Ala Arg Leu
 2793 3940 3945 3950
 2794 Val Ala Ala Arg Gly Arg Leu Met Gln Glu Leu Pro Ala Gly Gly Ala
 2795 3955 3960 3965
 2796 Met Leu Ala Val Gln Ala Ala Glu Asp Glu Ile Arg Val Trp Leu Glu
 2797 3970 3975 3980
 2798 Thr Glu Glu Arg Tyr Ala Gly Arg Leu Asp Val Ala Ala Val Asn Gly
 2799 3985 3990 3995 4000
 2800 Pro Glu Ala Ala Val Leu Ser Gly Asp Ala Asp Ala Ala Arg Glu Ala
 2801 4005 4010 4015
 2802 Glu Ala Tyr Trp Ser Gly Leu Gly Arg Arg Thr Arg Ala Leu Arg Val
 2803 4020 4025 4030
 2804 Ser His Ala Phe His Ser Ala His Met Asp Gly Met Leu Asp Gly Phe
 2805 4035 4040 4045
 2806 Arg Ala Val Leu Glu Thr Val Glu Phe Arg Arg Pro Ser Leu Thr Val
 2807 4050 4055 4060
 2808 Val Ser Asn Val Thr Gly Leu Ala Ala Gly Pro Asp Asp Leu Cys Asp
 2809 4065 4070 4075 4080
 2810 Pro Glu Tyr Trp Val Arg His Val Arg Gly Thr Val Arg Phe Leu Asp
 2811 4085 4090 4095
 2812 Gly Val Arg Val Leu Arg Asp Leu Gly Val Arg Thr Cys Leu Glu Leu
 2813 4100 4105 4110
 2814 Gly Pro Asp Gly Val Leu Thr Ala Met Ala Ala Asp Gly Leu Ala Asp
 2815 4115 4120 4125
 2816 Thr Pro Ala Asp Ser Ala Ala Gly Ser Pro Val Gly Ser Pro Ala Gly
 2817 4130 4135 4140
 2818 Ser Pro Ala Asp Ser Ala Ala Gly Ala Leu Arg Pro Arg Pro Leu Leu

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Input Set : A:\Sequence Listing.txt
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2819	4145	4150	4155	4160
2820	Val Ala Leu Leu Arg Arg Lys Arg Ser Glu Thr Glu Thr Val Ala Asp			
2821	4165	4170	4175	
2822	Ala Leu Gly Arg Ala His Ala His Gly Thr Gly Pro Asp Trp His Ala			
2823	4180	4185	4190	
2824	Trp Phe Ala Gly Ser Gly Ala His Arg Val Asp Leu Pro Thr Tyr Ser			
2825	4195	4200	4205	
2826	Phe Arg Arg Asp Arg Tyr Trp Leu Asp Ala Pro Ala Ala Asp Thr Ala			
2827	4210	4215	4220	
2828	Val Asp Thr Ala Gly Leu Gly Leu Gly Thr Ala Asp His Pro Leu Leu			
2829	4225	4230	4235	4240
2830	Gly Ala Val Val Ser Leu Pro Asp Arg Asp Gly Leu Leu Leu Thr Gly			
2831	4245	4250	4255	
2832	Arg Leu Ser Leu Arg Thr His Pro Trp Leu Ala Asp His Ala Val Leu			
2833	4260	4265	4270	
2834	Gly Ser Val Leu Leu Pro Gly Ala Ala Met Val Glu Leu Ala Ala His			
2835	4275	4280	4285	
2836	Ala Ala Glu Ser Ala Gly Leu Arg Asp Val Arg Glu Leu Thr Leu Leu			
2837	4290	4295	4300	
2838	Glu Pro Leu Val Leu Pro Glu His Gly Gly Val Glu Leu Arg Val Thr			
2839	4305	4310	4315	4320
2840	Val Gly Ala Pro Ala Gly Glu Pro Gly Gly Glu Ser Ala Gly Asp Gly			
2841	4325	4330	4335	
2842	Ala Arg Pro Val Ser Leu His Ser Arg Leu Ala Asp Ala Pro Ala Gly			
2843	4340	4345	4350	
2844	Thr Ala Trp Ser Cys His Ala Thr Gly Leu Leu Ala Thr Asp Arg Pro			
2845	4355	4360	4365	
2846	Glu Leu Pro Val Ala Pro Asp Arg Ala Ala Met Trp Pro Pro Gln Gly			
2847	4370	4375	4380	
2848	Ala Glu Glu Val Pro Leu Asp Gly Leu Tyr Glu Arg Leu Asp Gly Asn			
2849	4385	4390	4395	4400
2850	Gly Leu Ala Phe Gly Pro Leu Phe Gln Gly Leu Asn Ala Val Trp Arg			
2851	4405	4410	4415	
2852	Tyr Glu Gly Glu Val Phe Ala Asp Ile Ala Leu Pro Ala Thr Thr Asn			
2853	4420	4425	4430	
2854	Ala Thr Ala Pro Ala Thr Ala Asn Gly Gly Ser Ala Ala Ala Ala			
2855	4435	4440	4445	
2856	Pro Tyr Gly Ile His Pro Ala Leu Leu Asp Ala Ser Leu His Ala Ile			
2857	4450	4455	4460	
2858	Ala Val Gly Gly Leu Val Asp Glu Pro Glu Leu Val Arg Val Pro Phe			
2859	4465	4470	4475	4480
2860	His Trp Ser Gly Val Thr Val His Ala Ala Gly Ala Ala Ala Ala Arg			
2861	4485	4490	4495	
2862	Val Arg Leu Ala Ser Ala Gly Thr Asp Ala Val Ser Leu Ser Leu Thr			
2863	4500	4505	4510	
2864	Asp Gly Glu Gly Arg Pro Leu Val Ser Val Glu Arg Leu Thr Leu Arg			
2865	4515	4520	4525	
2866	Pro Val Thr Ala Asp Gln Ala Ala Ala Ser Arg Val Gly Gly Leu Met			
2867	4530	4535	4540	

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Input Set : A:\Sequence Listing.txt
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2868 His Arg Val Ala Trp Arg Pro Tyr Ala Leu Ala Ser Ser Gly Glu Gln
 2869 4545 4550 4555 4560
 2870 Asp Pro His Ala Thr Ser Tyr Gly Pro Thr Ala Val Leu Gly Lys Asp
 2871 4565 4570 4575
 2872 Glu Leu Lys Val Ala Ala Ala Leu Glu Ser Ala Gly Val Glu Val Gly
 2873 4580 4585 4590
 2874 Leu Tyr Pro Asp Leu Ala Ala Leu Ser Gln Asp Val Ala Ala Gly Ala
 2875 4595 4600 4605
 2876 Pro Ala Pro Arg Thr Val Leu Ala Pro Leu Pro Ala Gly Pro Ala Asp
 2877 4610 4615 4620
 2878 Gly Gly Ala Glu Gly Val Arg Gly Thr Val Ala Arg Thr Leu Glu Leu
 2879 4625 4630 4635 4640
 2880 Leu Gln Ala Trp Leu Ala Asp Glu His Leu Ala Gly Thr Arg Leu Leu
 2881 4645 4650 4655
 2882 Leu Val Thr Arg Gly Ala Val Arg Asp Pro Glu Gly Ser Gly Ala Asp
 2883 4660 4665 4670
 2884 Asp Gly Gly Glu Asp Leu Ser His Ala Ala Ala Trp Gly Leu Val Arg
 2885 4675 4680 4685
 2886 Thr Ala Gln Thr Glu Asn Pro Gly Arg Phe Gly Leu Leu Asp Leu Ala
 2887 4690 4695 4700
 2888 Asp Asp Ala Ser Ser Tyr Arg Thr Leu Pro Ser Val Leu Ser Asp Ala
 2889 4705 4710 4715 4720
 2890 Gly Leu Arg Asp Glu Pro Gln Leu Ala Leu His Asp Gly Thr Ile Arg
 2891 4725 4730 4735
 2892 Leu Ala Arg Leu Ala Ser Val Arg Pro Glu Thr Gly Thr Ala Ala Pro
 2893 4740 4745 4750
 2894 Ala Leu Ala Pro Glu Gly Thr Val Leu Leu Thr Gly Gly Thr Gly Gly
 2895 4755 4760 4765
 2896 Leu Gly Gly Leu Val Ala Arg His Val Val Gly Glu Trp Gly Val Arg
 2897 4770 4775 4780
 2898 Arg Leu Leu Leu Val Ser Arg Arg Gly Thr Asp Ala Pro Gly Ala Asp
 2899 4785 4790 4795 4800
 2900 Glu Leu Val His Glu Leu Glu Ala Leu Gly Ala Asp Val Ser Val Ala
 2901 4805 4810 4815
 2902 Ala Cys Asp Val Ala Asp Arg Glu Ala Leu Thr Ala Val Leu Asp Ala
 2903 4820 4825 4830
 2904 Ile Pro Ala Glu His Pro Leu Thr Ala Val Val His Thr Ala Gly Val
 2905 4835 4840 4845
 2906 Leu Ser Asp Gly Thr Leu Pro Ser Met Thr Thr Glu Asp Val Glu His
 2907 4850 4855 4860
 2908 Val Leu Arg Pro Lys Val Asp Ala Ala Phe Leu Leu Asp Glu Leu Thr
 2909 4865 4870 4875 4880
 2910 Ser Thr Pro Ala Tyr Asp Leu Ala Ala Phe Val Met Phe Ser Ser Ala
 2911 4885 4890 4895
 2912 Ala Ala Val Phe Gly Gly Ala Gly Gln Gly Ala Tyr Ala Ala Ala Asn
 2913 4900 4905 4910
 2914 Ala Thr Leu Asp Ala Leu Ala Trp Arg Arg Arg Ala Ala Gly Leu Pro
 2915 4915 4920 4925
 2916 Ala Leu Ser Leu Gly Trp Gly Leu Trp Ala Glu Thr Ser Gly Met Thr

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Input Set : A:\Sequence Listing.txt
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2917	4930	4935	4940
2918	Gly Glu Leu Gly Gln Ala Asp Leu Arg Arg Met Ser Arg Ala Gly Ile		
2919	4945	4950	4955
2920	Gly Gly Ile Ser Asp Ala Glu Gly Ile Ala Leu Leu Asp Ala Ala Leu		4960
2921	4965	4970	4975
2922	Arg Asp Asp Arg His Pro Val Leu Leu Pro Leu Arg Leu Asp Ala Ala		
2923	4980	4985	4990
2924	Gly Leu Arg Asp Ala Ala Gly Asn Asp Pro Ala Gly Ile Pro Ala Leu		
2925	4995	5000	5005
2926	Phe Arg Asp Val Val Gly Ala Arg Thr Val Arg Ala Arg Pro Ser Ala		
2927	5010	5015	5020
2928	Ala Ser Ala Ser Thr Thr Ala Gly Thr Ala Gly Thr Pro Gly Thr Ala		
2929	5025	5030	5035
2930	Asp Gly Ala Ala Glu Thr Ala Ala Val Thr Leu Ala Asp Arg Ala Ala		5040
2931	5045	5050	5055
2932	Thr Val Asp Gly Pro Ala Arg Gln Arg Leu Leu Leu Glu Phe Val Val		
2933	5060	5065	5070
2934	Gly Glu Val Ala Glu Val Leu Gly His Ala Arg Gly His Arg Ile Asp		
2935	5075	5080	5085
2936	Ala Glu Arg Gly Phe Leu Asp Leu Gly Phe Asp Ser Leu Thr Ala Val		
2937	5090	5095	5100
2938	Glu Leu Arg Asn Arg Leu Asn Ser Ala Gly Gly Leu Ala Leu Pro Ala		
2939	5105	5110	5115
2940	Thr Leu Val Phe Asp His Pro Ser Pro Ala Ala Leu Ala Ser His Leu		5120
2941	5125	5130	5135
2942	Asp Ala Glu Leu Pro Arg Gly Ala Ser Asp Gln Asp Gly Ala Gly Asn		
2943	5140	5145	5150
2944	Arg Asn Gly Asn Glu Asn Gly Thr Thr Ala Ser Arg Ser Thr Ala Glu		
2945	5155	5160	5165
2946	Thr Asp Ala Leu Leu Ala Gln Leu Thr Arg Leu Glu Gly Ala Leu Val		
2947	5170	5175	5180
2948	Leu Thr Gly Leu Ser Asp Ala Pro Gly Ser Glu Glu Val Leu Glu His		
2949	5185	5190	5195
2950	Leu Arg Ser Leu Arg Ser Met Val Thr Gly Glu Thr Gly Thr Gly Thr		5200
2951	5205	5210	5215
2952	Ala Ser Gly Ala Pro Asp Gly Ala Gly Ser Gly Ala Glu Asp Arg Pro		
2953	5220	5225	5230
2954	Trp Ala Ala Gly Asp Gly Ala Gly Gly Ser Glu Asp Gly Ala Gly		
2955	5235	5240	5245
2956	Val Pro Asp Phe Met Asn Ala Ser Ala Glu Glu Leu Phe Gly Leu Leu		
2957	5250	5255	5260
2958	Asp Gln Asp Pro Ser Thr Asp Met Ser Thr Val Asn Glu Glu Lys Tyr		
2959	5265	5270	5275
2960	Leu Asp Tyr Leu Arg Arg Ala Thr Ala Asp Leu His Glu Ala Arg Gly		5280
2961	5285	5290	5295
2962	Arg Leu Arg Glu Leu Glu Ala Lys Ala Gly Glu Pro Val Ala Ile Val		
2963	5300	5305	5310
2964	Gly Met Ala Cys Arg Leu Pro Gly Gly Val Ala Ser Pro Glu Asp Leu		
2965	5315	5320	5325

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Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\11212001\I988384.raw

2966 Trp Arg Leu Val Ala Gly Gly Glu Asp Ala Ile Ser Glu Phe Pro Gln
 2967 5330 5335 5340
 2968 Asp Arg Gly Trp Asp Val Glu Gly Leu Tyr Asp Pro Asn Pro Glu Ala
 2969 5345 5350 5355 5360
 2970 Thr Gly Lys Ser Tyr Ala Arg Glu Ala Gly Phe Leu Tyr Glu Ala Gly
 2971 5365 5370 5375
 2972 Glu Phe Asp Ala Asp Phe Phe Gly Ile Ser Pro Arg Glu Ala Leu Ala
 2973 5380 5385 5390
 2974 Met Asp Pro Gln Gln Arg Leu Leu Glu Ala Ser Trp Glu Ala Phe
 2975 5395 5400 5405
 2976 Glu His Ala Gly Ile Pro Ala Ala Thr Ala Arg Gly Thr Ser Val Gly
 2977 5410 5415 5420
 2978 Val Phe Thr Gly Val Met Tyr His Asp Tyr Ala Thr Arg Leu Thr Asp
 2979 5425 5430 5435 5440
 2980 Val Pro Glu Gly Ile Glu Gly Tyr Leu Gly Thr Gly Asn Ser Gly Ser
 2981 5445 5450 5455
 2982 Val Ala Ser Gly Arg Val Ala Tyr Thr Leu Gly Leu Glu Gly Pro Ala
 2983 5460 5465 5470
 2984 Val Thr Val Asp Thr Ala Cys Ser Ser Ser Leu Val Ala Leu His Leu
 2985 5475 5480 5485
 2986 Ala Val Gln Ala Leu Arg Lys Gly Glu Val Asp Met Ala Leu Ala Gly
 2987 5490 5495 5500
 2988 Gly Val Thr Val Met Ser Thr Pro Ser Thr Phe Val Glu Phe Ser Arg
 2989 5505 5510 5515 5520
 2990 Gln Arg Gly Leu Ala Pro Asp Gly Arg Ser Lys Ser Phe Ser Ser Thr
 2991 5525 5530 5535
 2992 Ala Asp Gly Thr Ser Trp Ser Glu Gly Val Gly Val Leu Leu Val Glu
 2993 5540 5545 5550
 2994 Arg Leu Ser Asp Ala Arg Arg Lys Gly His Arg Ile Leu Ala Val Val
 2995 5555 5560 5565
 2996 Arg Gly Thr Ala Val Asn Gln Asp Gly Ala Ser Ser Gly Leu Thr Ala
 2997 5570 5575 5580
 2998 Pro Asn Gly Pro Ser Gln Gln Arg Val Ile Arg Arg Ala Leu Ala Asp
 2999 5585 5590 5595 5600
 3000 Ala Arg Leu Thr Thr Ser Asp Val Asp Val Val Glu Ala His Gly Thr
 3001 5605 5610 5615
 3002 Gly Thr Arg Leu Gly Asp Pro Ile Glu Ala Gln Ala Val Ile Ala Thr
 3003 5620 5625 5630
 3004 Tyr Gly Gln Gly Arg Asp Gly Glu Gln Pro Leu Arg Leu Gly Ser Leu
 3005 5635 5640 5645
 3006 Lys Ser Asn Ile Gly His Thr Gln Ala Ala Ala Gly Val Ser Gly Val
 3007 5650 5655 5660
 3008 Ile Lys Met Val Gln Ala Met Arg His Gly Val Leu Pro Lys Thr Leu
 3009 5665 5670 5675 5680
 3010 His Val Glu Lys Pro Thr Asp Gln Val Asp Trp Ser Ala Gly Ala Val
 3011 5685 5690 5695
 3012 Glu Leu Leu Thr Glu Ala Met Asp Trp Pro Asp Lys Gly Asp Gly Gly
 3013 5700 5705 5710
 3014 Leu Arg Arg Ala Ala Val Ser Ser Phe Gly Val Ser Gly Thr Asn Ala

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Input Set : A:\Sequence Listing.txt
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3015	5715	5720	5725
3016	His Val Val Leu Glu Glu Ala Pro Ala Ala Glu Glu Thr Pro Ala Ser		
3017	5730	5735	5740
3018	Glu Ala Thr Pro Ala Val Glu Pro Ser Val Gly Ala Gly Leu Val Pro		
3019	5745	5750	5755
3020	Trp Leu Val Ser Ala Lys Thr Pro Ala Ala Leu Asp Ala Gln Ile Gly		
3021	5765	5770	5775
3022	Arg Leu Ala Ala Phe Ala Ser Gln Gly Arg Thr Asp Ala Ala Asp Pro		
3023	5780	5785	5790
3024	Gly Ala Val Ala Arg Val Leu Ala Gly Gly Arg Ala Glu Phe Glu His		
3025	5795	5800	5805
3026	Arg Ala Val Val Leu Gly Thr Gly Gln Asp Asp Phe Ala Gln Ala Leu		
3027	5810	5815	5820
3028	Thr Ala Pro Glu Gly Leu Ile Arg Gly Thr Pro Ser Asp Val Gly Arg		
3029	5825	5830	5835
3030	Val Ala Phe Val Phe Pro Gly Gln Gly Thr Gln Trp Ala Gly Met Gly		
3031	5845	5850	5855
3032	Ala Glu Leu Leu Asp Val Ser Lys Glu Phe Ala Ala Ala Met Ala Glu		
3033	5860	5865	5870
3034	Cys Glu Ser Ala Leu Ser Arg Tyr Val Asp Trp Ser Leu Glu Ala Val		
3035	5875	5880	5885
3036	Val Arg Gln Ala Pro Gly Ala Pro Thr Leu Glu Arg Val Asp Val Val		
3037	5890	5895	5900
3038	Gln Pro Val Thr Phe Ala Val Met Val Ser Leu Ala Lys Val Trp Gln		
3039	5905	5910	5915
3040	His His Gly Val Thr Pro Gln Ala Val Val Gly His Ser Gln Gly Glu		
3041	5925	5930	5935
3042	Ile Ala Ala Ala Tyr Val Ala Gly Ala Leu Thr Leu Asp Asp Ala Ala		
3043	5940	5945	5950
3044	Arg Val Val Thr Leu Arg Ser Lys Ser Ile Ala Ala His Leu Ala Gly		
3045	5955	5960	5965
3046	Lys Gly Gly Met Ile Ser Leu Ala Leu Ser Glu Glu Ala Thr Arg Gln		
3047	5970	5975	5980
3048	Arg Ile Glu Asn Leu His Gly Leu Ser Ile Ala Ala Val Asn Gly Pro		
3049	5985	5990	5995
3050	Thr Ala Thr Val Val Ser Gly Asp Pro Thr Gln Ile Gln Glu Leu Ala		
3051	6005	6010	6015
3052	Gln Ala Cys Glu Ala Asp Gly Val Arg Ala Arg Ile Ile Pro Val Asp		
3053	6020	6025	6030
3054	Tyr Ala Ser His Ser Ala His Val Glu Thr Ile Glu Ser Glu Leu Ala		
3055	6035	6040	6045
3056	Glu Val Leu Ala Gly Leu Ser Pro Arg Thr Pro Glu Val Pro Phe Phe		
3057	6050	6055	6060
3058	Ser Thr Leu Glu Gly Ala Trp Ile Thr Glu Pro Val Leu Asp Gly Thr		
3059	6065	6070	6075
3060	Tyr Trp Tyr Arg Asn Leu Arg His Arg Val Gly Phe Ala Pro Ala Val		
3061	6085	6090	6095
3062	Glu Thr Leu Ala Thr Asp Glu Gly Phe Thr His Phe Ile Glu Val Ser		
3063	6100	6105	6110

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Input Set : A:\Sequence Listing.txt
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3064	Ala His Pro Val Leu Thr Met Thr Leu Pro Glu Thr Val Thr Gly Leu			
3065	6115	6120	6125	
3066	Gly Thr Leu Arg Arg Glu Gln Gly Gly Gln Glu Arg Leu Val Thr Ser			
3067	6130	6135	6140	
3068	Leu Ala Glu Ala Trp Thr Asn Gly Leu Thr Ile Asp Trp Ala Pro Val			
3069	6145	6150	6155	6160
3070	Leu Pro Thr Ala Thr Gly His His Pro Glu Leu Pro Thr Tyr Ala Phe			
3071	6165	6170	6175	
3072	Gln Arg Arg His Tyr Trp Leu His Asp Ser Pro Ala Val Gln Gly Ser			
3073	6180	6185	6190	
3074	Val Gln Asp Ser Trp Arg Tyr Arg Ile Asp Trp Lys Arg Leu Ala Val			
3075	6195	6200	6205	
3076	Ala Asp Ala Ser Glu Arg Ala Gly Leu Ser Gly Arg Trp Leu Val Val			
3077	6210	6215	6220	
3078	Val Pro Glu Asp Arg Ser Ala Glu Ala Ala Pro Val Leu Ala Ala Leu			
3079	6225	6230	6235	6240
3080	Ser Gly Ala Gly Ala Asp Pro Val Gln Leu Asp Val Ser Pro Leu Gly			
3081	6245	6250	6255	
3082	Asp Arg Gln Arg Leu Ala Ala Thr Leu Gly Glu Ala Leu Ala Ala Ala			
3083	6260	6265	6270	
3084	Gly Gly Ala Val Asp Gly Val Leu Ser Leu Leu Ala Trp Asp Glu Ser			
3085	6275	6280	6285	
3086	Ala His Pro Gly His Pro Ala Pro Phe Thr Arg Gly Thr Gly Ala Thr			
3087	6290	6295	6300	
3088	Leu Thr Leu Val Gln Ala Leu Glu Asp Ala Gly Val Ala Ala Pro Leu			
3089	6305	6310	6315	6320
3090	Trp Cys Val Thr His Gly Ala Val Ser Val Gly Arg Ala Asp His Val			
3091	6325	6330	6335	
3092	Thr Ser Pro Ala Gln Ala Met Val Trp Gly Met Gly Arg Val Ala Ala			
3093	6340	6345	6350	
3094	Leu Glu His Pro Glu Arg Trp Gly Gly Leu Ile Asp Leu Pro Ser Asp			
3095	6355	6360	6365	
3096	Ala Asp Arg Ala Ala Leu Asp Arg Met Thr Thr Val Leu Ala Gly Gly			
3097	6370	6375	6380	
3098	Thr Gly Glu Asp Gln Val Ala Val Arg Ala Ser Gly Leu Leu Ala Arg			
3099	6385	6390	6395	6400
3100	Arg Leu Val Arg Ala Ser Leu Pro Ala His Gly Thr Ala Ser Pro Trp			
3101	6405	6410	6415	
3102	Trp Gln Ala Asp Gly Thr Val Leu Val Thr Gly Ala Glu Glu Pro Ala			
3103	6420	6425	6430	
3104	Ala Ala Glu Ala Ala Arg Arg Leu Ala Arg Asp Gly Ala Gly His Leu			
3105	6435	6440	6445	
3106	Leu Leu His Thr Thr Pro Ser Gly Ser Glu Gly Ala Glu Gly Thr Ser			
3107	6450	6455	6460	
3108	Gly Ala Ala Glu Asp Ser Gly Leu Ala Gly Leu Val Ala Glu Leu Ala			
3109	6465	6470	6475	6480
3110	Asp Leu Gly Ala Thr Ala Thr Val Val Thr Cys Asp Leu Thr Asp Ala			
3111	6485	6490	6495	
3112	Glu Ala Ala Ala Arg Leu Leu Ala Gly Val Ser Asp Ala His Pro Leu			

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Input Set : A:\Sequence Listing.txt
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3113	6500	6505	6510	
3114	Ser Ala Val Leu His Leu Pro Pro Thr Val Asp Ser Glu Pro Leu Ala			
3115	6515	6520	6525	
3116	Ala Thr Asp Ala Asp Ala Leu Ala Arg Val Val Thr Ala Lys Ala Thr			
3117	6530	6535	6540	
3118	Ala Ala Leu His Leu Asp Arg Leu Leu Arg Glu Ala Ala Ala Ala Gly			
3119	6545	6550	6555	6560
3120	Gly Arg Pro Pro Val Leu Val Leu Phe Ser Ser Val Ala Ala Ile Trp			
3121	6565	6570	6575	
3122	Gly Gly Ala Gly Gln Gly Ala Tyr Ala Ala Gly Thr Ala Phe Leu Asp			
3123	6580	6585	6590	
3124	Ala Leu Ala Gly Gln His Arg Ala Asp Gly Pro Thr Val Thr Ser Val			
3125	6595	6600	6605	
3126	Ala Trp Ser Pro Trp Glu Gly Ser Arg Val Thr Glu Gly Ala Thr Gly			
3127	6610	6615	6620	
3128	Glu Arg Leu Arg Arg Leu Gly Leu Arg Pro Leu Ala Pro Ala Thr Ala			
3129	6625	6630	6635	6640
3130	Leu Thr Ala Leu Asp Thr Ala Leu Gly His Gly Asp Thr Ala Val Thr			
3131	6645	6650	6655	
3132	Ile Ala Asp Val Asp Trp Ser Ser Phe Ala Pro Gly Phe Thr Thr Ala			
3133	6660	6665	6670	
3134	Arg Pro Gly Thr Leu Leu Ala Asp Leu Pro Glu Ala Arg Arg Ala Leu			
3135	6675	6680	6685	
3136	Asp Glu Gln Gln Ser Thr Thr Ala Ala Asp Asp Thr Val Leu Ser Arg			
3137	6690	6695	6700	
3138	Glu Leu Gly Ala Leu Thr Gly Ala Glu Gln Gln Arg Arg Met Gln Glu			
3139	6705	6710	6715	6720
3140	Leu Val Arg Glu His Leu Ala Val Val Leu Asn His Pro Ser Pro Glu			
3141	6725	6730	6735	
3142	Ala Val Asp Thr Gly Arg Ala Phe Arg Asp Leu Gly Phe Asp Ser Leu			
3143	6740	6745	6750	
3144	Thr Ala Val Glu Leu Arg Asn Arg Leu Lys Asn Ala Thr Gly Leu Ala			
3145	6755	6760	6765	
3146	Leu Pro Ala Thr Leu Val Phe Asp Tyr Pro Thr Pro Arg Thr Leu Ala			
3147	6770	6775	6780	
3148	Glu Phe Leu Leu Ala Glu Ile Leu Gly Glu Gln Ala Gly Ala Gly Glu			
3149	6785	6790	6795	6800
3150	Gln Leu Pro Val Asp Gly Gly Val Asp Asp Glu Pro Val Ala Ile Val			
3151	6805	6810	6815	
3152	Gly Met Ala Cys Arg Leu Pro Gly Gly Val Ala Ser Pro Glu Asp Leu			
3153	6820	6825	6830	
3154	Trp Arg Leu Val Ala Gly Gly Glu Asp Ala Ile Ser Gly Phe Pro Gln			
3155	6835	6840	6845	
3156	Asp Arg Gly Trp Asp Val Glu Gly Leu Tyr Asp Pro Asp Pro Asp Ala			
3157	6850	6855	6860	
3158	Ser Gly Arg Thr Tyr Cys Arg Ala Gly Gly Phe Leu Asp Glu Ala Gly			
3159	6865	6870	6875	6880
3160	Glu Phe Asp Ala Asp Phe Phe Gly Ile Ser Pro Arg Glu Ala Leu Ala			
3161	6885	6890	6895	

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Input Set : A:\Sequence Listing.txt
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3162 Met Asp Pro Gln Gln Arg Leu Leu Leu Glu Thr Ser Trp Glu Ala Val
 3163 6900 6905 6910
 3164 Glu Asp Ala Gly Ile Asp Pro Thr Ser Leu Gln Gly Gln Gln Val Gly
 3165 6915 6920 6925
 3166 Val Phe Ala Gly Thr Asn Gly Pro His Tyr Glu Pro Leu Leu Arg Asn
 3167 6930 6935 6940
 3168 Thr Ala Glu Asp Leu Glu Gly Tyr Val Gly Thr Gly Asn Ala Ala Ser
 3169 6945 6950 6955 6960
 3170 Ile Met Ser Gly Arg Val Ser Tyr Thr Leu Gly Leu Glu Gly Pro Ala
 3171 6965 6970 6975
 3172 Val Thr Val Asp Thr Ala Cys Ser Ser Leu Val Ala Leu His Leu
 3173 6980 6985 6990
 3174 Ala Val Gln Ala Leu Arg Lys Gly Glu Cys Gly Leu Ala Leu Ala Gly
 3175 6995 7000 7005
 3176 Gly Val Thr Val Met Ser Thr Pro Thr Thr Phe Val Glu Phe Ser Arg
 3177 7010 7015 7020
 3178 Gln Arg Gly Leu Ala Glu Asp Gly Arg Ser Lys Ala Phe Ala Ala Ser
 3179 7025 7030 7035 7040
 3180 Ala Asp Gly Phe Gly Pro Ala Glu Gly Val Gly Met Leu Leu Val Glu
 3181 7045 7050 7055
 3182 Arg Leu Ser Asp Ala Arg Arg Asn Gly His Arg Val Leu Ala Val Val
 3183 7060 7065 7070
 3184 Arg Gly Ser Ala Val Asn Gln Asp Gly Ala Ser Asn Gly Leu Thr Ala
 3185 7075 7080 7085
 3186 Pro Asn Gly Pro Ser Gln Gln Arg Val Ile Arg Arg Ala Leu Ala Asp
 3187 7090 7095 7100
 3188 Ala Arg Leu Thr Thr Ala Asp Val Asp Val Val Glu Ala His Gly Thr
 3189 7105 7110 7115 7120
 3190 Gly Thr Arg Leu Gly Asp Pro Ile Glu Ala Gln Ala Leu Ile Ala Thr
 3191 7125 7130 7135
 3192 Tyr Gly Gln Gly Arg Asp Thr Glu Gln Pro Leu Arg Leu Gly Ser Leu
 3193 7140 7145 7150
 3194 Lys Ser Asn Ile Gly His Thr Gln Ala Ala Ala Gly Val Ser Gly Ile
 3195 7155 7160 7165
 3196 Ile Lys Met Val Gln Ala Met Arg His Gly Val Leu Pro Lys Thr Leu
 3197 7170 7175 7180
 3198 His Val Asp Arg Pro Ser Asp Gln Ile Asp Trp Ser Ala Gly Thr Val
 3199 7185 7190 7195 7200
 3200 Glu Leu Leu Thr Glu Ala Met Asp Trp Pro Arg Lys Gln Glu Gly Gly
 3201 7205 7210 7215
 3202 Leu Arg Arg Ala Ala Val Ser Ser Phe Gly Ile Ser Gly Thr Asn Ala
 3203 7220 7225 7230
 3204 His Ile Val Leu Glu Glu Ala Pro Val Asp Glu Asp Ala Pro Ala Asp
 3205 7235 7240 7245
 3206 Glu Pro Ser Val Gly Gly Val Val Pro Trp Leu Val Ser Ala Lys Thr
 3207 7250 7255 7260
 3208 Pro Ala Ala Leu Asp Ala Gln Ile Gly Arg Leu Ala Ala Phe Ala Ser
 3209 7265 7270 7275 7280
 3210 Gln Gly Arg Thr Asp Ala Ala Asp Pro Gly Ala Val Ala Arg Val Leu

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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

3211	7285	7290	7295
3212	Ala Gly Gly Arg Ala Gln Phe Glu His Arg Ala Val Ala Leu Gly Thr		
3213	7300	7305	7310
3214	Gly Gln Asp Asp Leu Ala Ala Leu Ala Ala Pro Glu Gly Leu Val		
3215	7315	7320	7325
3216	Arg Gly Val Ala Ser Gly Val Gly Arg Val Ala Phe Val Phe Pro Gly		
3217	7330	7335	7340
3218	Gln Gly Thr Gln Trp Ala Gly Met Gly Ala Glu Leu Leu Asp Val Ser		
3219	7345	7350	7355
3220	Lys Glu Phe Ala Ala Ala Met Ala Glu Cys Glu Ala Ala Leu Ala Pro		
3221	7365	7370	7375
3222	Tyr Val Asp Trp Ser Leu Glu Ala Val Val Arg Gln Ala Pro Gly Ala		
3223	7380	7385	7390
3224	Pro Thr Leu Glu Arg Val Asp Val Val Gln Pro Val Thr Phe Ala Val		
3225	7395	7400	7405
3226	Met Val Ser Leu Ala Lys Val Trp Gln His His Gly Val Thr Pro Gln		
3227	7410	7415	7420
3228	Ala Val Val Gly His Ser Gln Gly Glu Ile Ala Ala Ala Tyr Val Ala		
3229	7425	7430	7435
3230	Gly Ala Leu Ser Leu Asp Asp Ala Ala Arg Val Val Thr Leu Arg Ser		
3231	7445	7450	7455
3232	Lys Ser Ile Gly Ala His Leu Ala Gly Gln Gly Gly Met Leu Ser Leu		
3233	7460	7465	7470
3234	Ala Leu Ser Glu Ala Ala Val Val Glu Arg Leu Ala Gly Phe Asp Gly		
3235	7475	7480	7485
3236	Leu Ser Val Ala Ala Val Asn Gly Pro Thr Ala Thr Val Val Ser Gly		
3237	7490	7495	7500
3238	Asp Pro Thr Gln Ile Gln Glu Leu Ala Gln Ala Cys Glu Ala Asp Gly		
3239	7505	7510	7515
3240	Val Arg Ala Arg Ile Ile Pro Val Asp Tyr Ala Ser His Ser Ala His		
3241	7525	7530	7535
3242	Val Glu Thr Ile Glu Ser Glu Leu Ala Asp Val Leu Ala Gly Leu Ser		
3243	7540	7545	7550
3244	Pro Gln Thr Pro Gln Val Pro Phe Phe Ser Thr Leu Glu Gly Ala Trp		
3245	7555	7560	7565
3246	Ile Thr Glu Pro Ala Leu Asp Gly Gly Tyr Trp Tyr Arg Asn Leu Arg		
3247	7570	7575	7580
3248	His Arg Val Gly Phe Ala Pro Ala Val Glu Thr Leu Ala Thr Asp Glu		
3249	7585	7590	7595
3250	Gly Phe Thr His Phe Val Glu Val Ser Ala His Pro Val Leu Thr Met		
3251	7605	7610	7615
3252	Ala Leu Pro Glu Thr Val Thr Gly Leu Gly Thr Leu Arg Arg Asp Asn		
3253	7620	7625	7630
3254	Gly Gly Gln His Arg Leu Thr Thr Ser Leu Ala Glu Ala Trp Ala Asn		
3255	7635	7640	7645
3256	Gly Leu Thr Val Asp Trp Ala Ser Leu Leu Pro Thr Thr Thr His		
3257	7650	7655	7660
3258	Pro Asp Leu Pro Thr Tyr Ala Phe Gln Thr Glu Arg Tyr Trp Pro Gln		
3259	7665	7670	7675
			7680

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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

3260 Pro Asp Leu Ser Ala Ala Gly Asp Ile Thr Ser Ala Gly Leu Gly Ala
 3261 7685 7690 7695
 3262 Ala Glu His Pro Leu Leu Gly Ala Ala Val Ala Leu Ala Asp Ser Asp
 3263 7700 7705 7710
 3264 Gly Cys Leu Leu Thr Gly Ser Leu Ser Leu Arg Thr His Pro Trp Leu
 3265 7715 7720 7725
 3266 Ala Asp His Ala Val Ala Gly Thr Val Leu Leu Pro Gly Thr Ala Phe
 3267 7730 7735 7740
 3268 Val Glu Leu Ala Phe Arg Ala Gly Asp Gln Val Gly Cys Asp Leu Val
 3269 7745 7750 7755 7760
 3270 Glu Glu Leu Thr Leu Asp Ala Pro Leu Val Leu Pro Arg Arg Gly Ala
 3271 7765 7770 7775
 3272 Val Arg Val Gln Leu Ser Val Gly Ala Ser Asp Glu Ser Gly Arg Arg
 3273 7780 7785 7790
 3274 Thr Phe Gly Leu Tyr Ala His Pro Glu Asp Ala Pro Gly Glu Ala Glu
 3275 7795 7800 7805
 3276 Trp Thr Arg His Ala Thr Gly Val Leu Ala Ala Arg Ala Asp Arg Thr
 3277 7810 7815 7820
 3278 Ala Pro Val Ala Asp Pro Glu Ala Trp Pro Pro Gly Ala Glu Pro
 3279 7825 7830 7835 7840
 3280 Val Asp Val Asp Gly Leu Tyr Glu Arg Phe Ala Ala Asn Gly Tyr Gly
 3281 7845 7850 7855
 3282 Tyr Gly Pro Leu Phe Gln Gly Val Arg Gly Val Trp Arg Arg Gly Asp
 3283 7860 7865 7870
 3284 Glu Val Phe Ala Asp Val Ala Leu Pro Ala Glu Val Ala Gly Ala Glu
 3285 7875 7880 7885
 3286 Gly Ala Arg Phe Gly Leu His Pro Ala Leu Leu Asp Ala Ala Val Gln
 3287 7890 7895 7900
 3288 Ala Ala Gly Ala Gly Arg Gly Val Arg Arg Gly His Ala Ala Ala Val
 3289 7905 7910 7915 7920
 3290 Arg Leu Glu Arg Asp Leu Leu Tyr Ala Val Gly Ala Thr Ala Leu Arg
 3291 7925 7930 7935
 3292 Val Arg Leu Ala Pro Ala Gly Pro Asp Thr Val Ser Val Ser Ala Ala
 3293 7940 7945 7950
 3294 Asp Ser Ser Gly Gln Pro Val Phe Ala Ala Asp Ser Leu Thr Val Leu
 3295 7955 7960 7965
 3296 Pro Val Asp Pro Ala Gln Leu Ala Ala Phe Ser Asp Pro Thr Leu Asp
 3297 7970 7975 7980
 3298 Ala Leu His Leu Leu Glu Trp Thr Ala Trp Asp Gly Ala Ala Gln Ala
 3299 7985 7990 7995 8000
 3300 Leu Pro Gly Ala Val Val Leu Gly Gly Asp Ala Asp Gly Leu Ala Ala
 3301 8005 8010 8015
 3302 Ala Leu Arg Ala Gly Gly Thr Glu Val Leu Ser Phe Pro Asp Leu Thr
 3303 8020 8025 8030
 3304 Asp Leu Val Glu Ala Val Asp Arg Gly Glu Thr Pro Ala Pro Ala Thr
 3305 8035 8040 8045
 3306 Val Leu Val Ala Cys Pro Ala Ala Gly Pro Asp Gly Pro Glu His Val
 3307 8050 8055 8060
 3308 Arg Glu Ala Leu His Gly Ser Leu Ala Leu Met Gln Ala Trp Leu Ala

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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

3309	8065	8070	8075	8080
3310	Asp Glu Arg Phe Thr Asp Gly Arg Leu Val Leu Val Thr Arg Asp Ala			
3311	8085	8090	8095	
3312	Val Ala Ala Arg Ser Gly Asp Gly Leu Arg Ser Thr Gly Gln Ala Ala			
3313	8100	8105	8110	
3314	Val Trp Gly Leu Gly Arg Ser Ala Gln Thr Glu Ser Pro Gly Arg Phe			
3315	8115	8120	8125	
3316	Val Leu Leu Asp Leu Ala Gly Glu Ala Arg Thr Ala Gly Asp Ala Thr			
3317	8130	8135	8140	
3318	Ala Gly Asp Gly Leu Thr Thr Gly Asp Ala Thr Val Gly Gly Thr Ser			
3319	8145	8150	8155	8160
3320	Gly Asp Ala Ala Leu Gly Ser Ala Leu Ala Thr Ala Leu Gly Ser Gly			
3321	8165	8170	8175	
3322	Glu Pro Gln Leu Ala Leu Arg Asp Gly Ala Leu Leu Val Pro Arg Leu			
3323	8180	8185	8190	
3324	Ala Arg Ala Ala Ala Pro Ala Ala Asp Gly Leu Ala Ala Ala Asp			
3325	8195	8200	8205	
3326	Gly Leu Ala Ala Leu Pro Leu Pro Ala Ala Pro Ala Leu Trp Arg Leu			
3327	8210	8215	8220	
3328	Glu Pro Gly Thr Asp Gly Ser Leu Glu Ser Leu Thr Ala Ala Pro Gly			
3329	8225	8230	8235	8240
3330	Asp Ala Glu Thr Leu Ala Pro Glu Pro Leu Gly Pro Gly Gln Val Arg			
3331	8245	8250	8255	
3332	Ile Ala Ile Arg Ala Thr Gly Leu Asn Phe Arg Asp Val Leu Ile Ala			
3333	8260	8265	8270	
3334	Leu Gly Met Tyr Pro Asp Pro Ala Leu Met Gly Thr Glu Gly Ala Gly			
3335	8275	8280	8285	
3336	Val Val Thr Ala Thr Gly Pro Gly Val Thr His Leu Ala Pro Gly Asp			
3337	8290	8295	8300	
3338	Arg Val Met Gly Leu Leu Ser Gly Ala Tyr Ala Pro Val Val Val Ala			
3339	8305	8310	8315	8320
3340	Asp Ala Arg Thr Val Ala Arg Met Pro Glu Gly Trp Thr Phe Ala Gln			
3341	8325	8330	8335	
3342	Gly Ala Ser Val Pro Val Val Phe Leu Thr Ala Val Tyr Ala Leu Arg			
3343	8340	8345	8350	
3344	Asp Leu Ala Asp Val Lys Pro Gly Glu Arg Leu Leu Val His Ser Ala			
3345	8355	8360	8365	
3346	Ala Gly Gly Val Gly Met Ala Ala Val Gln Leu Ala Arg His Trp Gly			
3347	8370	8375	8380	
3348	Val Glu Val His Gly Thr Ala Ser His Gly Lys Trp Asp Ala Leu Arg			
3349	8385	8390	8395	8400
3350	Ala Leu Gly Leu Asp Asp Ala His Ile Ala Ser Ser Arg Thr Leu Asp			
3351	8405	8410	8415	
3352	Phe Glu Ser Ala Phe Arg Ala Ala Ser Gly Gly Ala Gly Met Asp Val			
3353	8420	8425	8430	
3354	Val Leu Asn Ser Leu Ala Arg Glu Phe Val Asp Ala Ser Leu Arg Leu			
3355	8435	8440	8445	
3356	Leu Gly Pro Gly Gly Arg Phe Val Glu Met Gly Lys Thr Asp Val Arg			
3357	8450	8455	8460	

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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

3358	Asp Ala Glu Arg Val Ala Ala Asp His Pro Gly Val Gly Tyr Arg Ala
3359	8465 8470 8475 8480
3360	Phe Asp Leu Gly Glu Ala Gly Pro Glu Arg Ile Gly Glu Met Leu Ala
3361	8485 8490 8495
3362	Glu Val Ile Ala Leu Phe Glu Asp Gly Val Leu Arg His Leu Pro Val
3363	8500 8505 8510
3364	Thr Thr Trp Asp Val Arg Arg Ala Arg Asp Ala Phe Arg His Val Ser
3365	8515 8520 8525
3366	Gln Ala Arg His Thr Gly Lys Val Val Leu Thr Met Pro Ser Gly Leu
3367	8530 8535 8540
3368	Asp Pro Glu Gly Thr Val Leu Leu Thr Gly Gly Thr Gly Ala Leu Gly
3369	8545 8550 8555 8560
3370	Gly Ile Val Ala Arg His Val Val Gly Glu Trp Gly Val Arg Arg Leu
3371	8565 8570 8575
3372	Leu Leu Val Ser Arg Arg Gly Thr Asp Ala Pro Gly Ala Gly Glu Leu
3373	8580 8585 8590
3374	Val His Glu Leu Glu Ala Leu Gly Ala Asp Val Ser Val Ala Ala Cys
3375	8595 8600 8605
3376	Asp Val Ala Asp Arg Glu Ala Leu Thr Ala Val Leu Asp Ser Ile Pro
3377	8610 8615 8620
3378	Ala Glu His Pro Leu Thr Ala Val Val His Thr Ala Gly Val Leu Ser
3379	8625 8630 8635 8640
3380	Asp Gly Thr Leu Pro Ser Met Thr Ala Glu Asp Val Glu His Val Leu
3381	8645 8650 8655
3382	Arg Pro Lys Val Asp Ala Ala Phe Leu Leu Asp Glu Leu Thr Ser Thr
3383	8660 8665 8670
3384	Pro Gly Tyr Asp Leu Ala Ala Phe Val Met Phe Ser Ser Ala Ala Ala
3385	8675 8680 8685
3386	Val Phe Gly Gly Ala Gly Gln Gly Ala Tyr Ala Ala Ala Asn Ala Thr
3387	8690 8695 8700
3388	Leu Asp Ala Leu Ala Trp Arg Arg Arg Thr Ala Gly Leu Pro Ala Leu
3389	8705 8710 8715 8720
3390	Ser Leu Gly Trp Gly Leu Trp Ala Glu Thr Ser Gly Met Thr Gly Gly
3391	8725 8730 8735
3392	Leu Ser Asp Thr Asp Arg Ser Arg Leu Ala Arg Ser Gly Ala Thr Pro
3393	8740 8745 8750
3394	Met Asp Ser Glu Leu Thr Leu Ser Leu Leu Asp Ala Ala Met Arg Arg
3395	8755 8760 8765
3396	Asp Asp Pro Ala Leu Val Pro Ile Ala Leu Asp Val Ala Ala Leu Arg
3397	8770 8775 8780
3398	Ala Gln Gln Arg Asp Gly Met Leu Ala Pro Leu Leu Ser Gly Leu Thr
3399	8785 8790 8795 8800
3400	Arg Gly Ser Arg Val Gly Gly Ala Pro Val Asn Gln Arg Arg Ala Ala
3401	8805 8810 8815
3402	Ala Gly Gly Ala Gly Glu Ala Asp Thr Asp Leu Gly Gly Arg Leu Ala
3403	8820 8825 8830
3404	Ala Met Thr Pro Asp Asp Arg Val Ala His Leu Arg Asp Leu Val Arg
3405	8835 8840 8845
3406	Thr His Val Ala Thr Val Leu Gly His Gly Thr Pro Ser Arg Val Asp

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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

3407	8850	8855	8860
3408	Leu Glu Arg Ala Phe Arg Asp Thr Gly Phe Asp Ser Leu Thr Ala Val		
3409	8865	8870	8875
3410	Glu Leu Arg Asn Arg Leu Asn Ala Ala Thr Gly Leu Arg Leu Pro Ala		8880
3411	8885	8890	8895
3412	Thr Leu Val Phe Asp His Pro Thr Pro Gly Glu Leu Ala Gly His Leu		
3413	8900	8905	8910
3414	Leu Asp Glu Leu Ala Thr Ala Ala Gly Gly Ser Trp Ala Glu Gly Thr		
3415	8915	8920	8925
3416	Gly Ser Gly Asp Thr Ala Ser Ala Thr Asp Arg Gln Thr Thr Ala Ala		
3417	8930	8935	8940
3418	Leu Ala Glu Leu Asp Arg Leu Glu Gly Val Leu Ala Ser Leu Ala Pro		
3419	8945	8950	8955
3420	Ala Ala Gly Gly Arg Pro Glu Leu Ala Ala Arg Leu Arg Ala Leu Ala		8960
3421	8965	8970	8975
3422	Ala Ala Leu Gly Asp Asp Gly Asp Asp Ala Thr Asp Leu Asp Glu Ala		
3423	8980	8985	8990
3424	Ser Asp Asp Asp Leu Phe Ser Phe Ile Asp Lys Glu Leu Gly Asp Ser		
3425	8995	9000	9005
3426	Asp Phe Met Ala Asn Asn Glu Asp Lys Leu Arg Asp Tyr Leu Lys Arg		
3427	9010	9015	9020
3428	Val Thr Ala Glu Leu Gln Gln Asn Thr Arg Arg Leu Arg Glu Ile Glu		
3429	9025	9030	9035
3430	Gly Arg Thr His Glu Pro Val Ala Ile Val Gly Met Ala Cys Arg Leu		
3431	9045	9050	9055
3432	Pro Gly Gly Val Ala Ser Pro Glu Asp Leu Trp Gln Leu Val Ala Gly		
3433	9060	9065	9070
3434	Asp Gly Asp Ala Ile Ser Glu Phe Pro Gln Asp Arg Gly Trp Asp Val		
3435	9075	9080	9085
3436	Glu Gly Leu Tyr Asp Pro Asp Pro Asp Ala Ser Gly Arg Thr Tyr Cys		
3437	9090	9095	9100
3438	Arg Ser Gly Gly Phe Leu His Asp Ala Gly Glu Phe Asp Ala Asp Phe		
3439	9105	9110	9115
3440	Phe Gly Ile Ser Pro Arg Glu Ala Leu Ala Met Asp Pro Gln Gln Arg		9120
3441	9125	9130	9135
3442	Leu Ser Leu Thr Thr Ala Trp Glu Ala Ile Glu Ser Ala Gly Ile Asp		
3443	9140	9145	9150
3444	Pro Thr Ala Leu Lys Gly Ser Gly Leu Gly Val Phe Val Gly Gly Trp		
3445	9155	9160	9165
3446	His Thr Gly Tyr Thr Ser Gly Gln Thr Thr Ala Val Gln Ser Pro Glu		
3447	9170	9175	9180
3448	Leu Glu Gly His Leu Val Ser Gly Ala Ala Leu Gly Phe Leu Ser Gly		
3449	9185	9190	9195
3450	Arg Ile Ala Tyr Val Leu Gly Thr Asp Gly Pro Ala Leu Thr Val Asp		9200
3451	9205	9210	9215
3452	Thr Ala Cys Ser Ser Ser Leu Val Ala Leu His Leu Ala Val Gln Ala		
3453	9220	9225	9230
3454	Leu Arg Lys Gly Glu Cys Asp Met Ala Leu Ala Gly Gly Val Thr Val		
3455	9235	9240	9245

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Input Set : A:\Sequence Listing.txt
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3456	Met Pro Asn Ala Asp Leu Phe Val Gln Phe Ser Arg Gln Arg Gly Leu
3457	9250 9255 9260
3458	Ala Ala Asp Gly Arg Ser Lys Ala Phe Ala Thr Ser Ala Asp Gly Phe
3459	9265 9270 9275 9280
3460	Gly Pro Ala Glu Gly Ala Gly Val Leu Leu Val Glu Arg Leu Ser Asp
3461	9285 9290 9295
3462	Ala Arg Arg Asn Gly His Arg Ile Leu Ala Val Val Arg Gly Ser Ala
3463	9300 9305 9310
3464	Val Asn Gln Asp Gly Ala Ser Asn Gly Leu Thr Ala Pro His Gly Pro
3465	9315 9320 9325
3466	Ser Gln Gln Arg Val Ile Arg Arg Ala Leu Ala Asp Ala Arg Leu Ala
3467	9330 9335 9340
3468	Pro Gly Asp Val Asp Val Val Glu Ala His Gly Thr Gly Thr Arg Leu
3469	9345 9350 9355 9360
3470	Gly Asp Pro Ile Glu Ala Gln Ala Leu Ile Ala Thr Tyr Gly Gln Glu
3471	9365 9370 9375
3472	Lys Ser Ser Glu Gln Pro Leu Arg Leu Gly Ala Leu Lys Ser Asn Ile
3473	9380 9385 9390
3474	Gly His Thr Gln Ala Ala Ala Gly Val Ala Gly Val Ile Lys Met Val
3475	9395 9400 9405
3476	Gln Ala Met Arg His Gly Leu Leu Pro Lys Thr Leu His Val Asp Glu
3477	9410 9415 9420
3478	Pro Ser Asp Gln Ile Asp Trp Ser Ala Gly Thr Val Glu Leu Leu Thr
3479	9425 9430 9435 9440
3480	Glu Ala Val Asp Trp Pro Glu Lys Gln Asp Gly Gly Leu Arg Arg Ala
3481	9445 9450 9455
3482	Ala Val Ser Ser Phe Gly Ile Ser Gly Thr Asn Ala His Val Val Leu
3483	9460 9465 9470
3484	Glu Glu Ala Pro Ala Val Glu Asp Ser Pro Ala Val Glu Pro Pro Ala
3485	9475 9480 9485
3486	Gly Gly Gly Val Val Pro Trp Pro Val Ser Ala Lys Thr Pro Ala Ala
3487	9490 9495 9500
3488	Leu Asp Ala Gln Ile Gly Gln Leu Ala Ala Tyr Ala Asp Gly Arg Thr
3489	9505 9510 9515 9520
3490	Asp Val Asp Pro Ala Val Ala Ala Arg Ala Leu Val Asp Ser Arg Thr
3491	9525 9530 9535
3492	Ala Met Glu His Arg Ala Val Ala Val Gly Asp Ser Arg Glu Ala Leu
3493	9540 9545 9550
3494	Arg Asp Ala Leu Arg Met Pro Glu Gly Leu Val Arg Gly Thr Ser Ser
3495	9555 9560 9565
3496	Asp Val Gly Arg Val Ala Phe Val Phe Pro Gly Gln Gly Thr Gln Trp
3497	9570 9575 9580
3498	Ala Gly Met Gly Ala Glu Leu Leu Asp Ser Ser Pro Glu Phe Ala Ala
3499	9585 9590 9595 9600
3500	Ser Met Ala Glu Cys Glu Thr Ala Leu Ser Arg Tyr Val Asp Trp Ser
3501	9605 9610 9615
3502	Leu Glu Ala Val Val Arg Gln Glu Pro Gly Ala Pro Thr Leu Asp Arg
3503	9620 9625 9630
3504	Val Asp Val Val Gln Pro Val Thr Phe Ala Val Met Val Ser Leu Ala

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3505	9635	9640	9645
3506	Lys Val Trp Gln His His Gly Ile Thr Pro Gln Ala Val Val Gly His		
3507	9650	9655	9660
3508	Ser Gln Gly Glu Ile Ala Ala Ala Tyr Val Ala Gly Ala Leu Thr Leu		
3509	9665	9670	9675
3510	Asp Asp Ala Ala Arg Val Val Thr Leu Arg Ser Lys Ser Ile Ala Ala		9680
3511	9685	9690	9695
3512	His Leu Ala Gly Lys Gly Gly Met Ile Ser Leu Ala Leu Asp Glu Ala		
3513	9700	9705	9710
3514	Ala Val Leu Lys Arg Leu Ser Asp Phe Asp Gly Leu Ser Val Ala Ala		
3515	9715	9720	9725
3516	Val Asn Gly Pro Thr Ala Thr Val Val Ser Gly Asp Pro Thr Gln Ile		
3517	9730	9735	9740
3518	Glu Glu Leu Ala Arg Thr Cys Glu Ala Asp Gly Val Arg Ala Arg Ile		
3519	9745	9750	9755
3520	Ile Pro Val Asp Tyr Ala Ser His Ser Arg Gln Val Glu Ile Ile Glu		9760
3521	9765	9770	9775
3522	Lys Glu Leu Ala Glu Val Leu Ala Gly Leu Ala Pro Gln Ala Pro His		
3523	9780	9785	9790
3524	Val Pro Phe Phe Ser Thr Leu Glu Gly Thr Trp Ile Thr Glu Pro Val		
3525	9795	9800	9805
3526	Leu Asp Gly Thr Tyr Trp Tyr Arg Asn Leu Arg His Arg Val Gly Phe		
3527	9810	9815	9820
3528	Ala Pro Ala Val Glu Thr Leu Ala Val Asp Gly Phe Thr His Phe Ile		
3529	9825	9830	9835
3530	Glu Val Ser Ala His Pro Val Leu Thr Met Thr Leu Pro Glu Thr Val		
3531	9845	9850	9855
3532	Thr Gly Leu Gly Thr Leu Arg Arg Glu Gln Gly Gly Gln Glu Arg Leu		
3533	9860	9865	9870
3534	Val Thr Ser Leu Ala Glu Ala Trp Ala Asn Gly Leu Thr Ile Asp Trp		
3535	9875	9880	9885
3536	Ala Pro Ile Leu Pro Thr Ala Thr Gly His His Pro Glu Leu Pro Thr		
3537	9890	9895	9900
3538	Tyr Ala Phe Gln Thr Glu Arg Phe Trp Leu Gln Ser Ser Ala Pro Thr		
3539	9905	9910	9915
3540	Ser Ala Ala Asp Asp Trp Arg Tyr Arg Val Glu Trp Lys Pro Leu Thr		9920
3541	9925	9930	9935
3542	Ala Ser Gly Gln Ala Asp Leu Ser Gly Arg Trp Ile Val Ala Val Gly		
3543	9940	9945	9950
3544	Ser Glu Pro Glu Ala Glu Leu Leu Gly Ala Leu Lys Ala Ala Gly Ala		
3545	9955	9960	9965
3546	Glu Val Asp Val Leu Glu Ala Gly Ala Asp Asp Asp Arg Glu Ala Leu		
3547	9970	9975	9980
3548	Ala Ala Arg Leu Thr Ala Leu Thr Thr Gly Asp Gly Phe Thr Gly Val		
3549	9985	9990	9995
3550	Val Ser Leu Leu Asp Asp Leu Val Pro Gln Val Ala Trp Val Gln Ala		10000
3551	10005	10010	10015
3552	Leu Gly Asp Ala Gly Ile Lys Ala Pro Leu Trp Ser Val Thr Gln Gly		
3553	10020	10025	10030

Some errors on
Errors - pp. 27-32
See error summary
Sheet, Item 3

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Input Set : A:\Sequence Listing.txt
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3554 Ala Val Ser Val Gly Arg Leu Asp Thr Pro Ala Asp Pro Asp Arg Ala
3555 10035 10040 10045
3556 Met Leu Trp Gly Leu Gly Arg Val Val Ala Leu Glu His Pro Glu Arg
E--> 3557 10050 10055 10060 1
3558 Trp Ala Gly Leu Val Asp Leu Pro Ala Gln Pro Asp Ala Ala Ala Leu
E--> 3559 0065 10070 10075 10080
3560 Ala His Leu Val Thr Ala Leu Ser Gly Ala Thr Gly Glu Asp Gln Ile
3561 10085 10090 10095
3562 Ala Ile Arg Thr Thr Gly Leu His Ala Arg Arg Leu Ala Arg Ala Pro
3563 10100 10105 10110
3564 Leu His Gly Arg Arg Pro Thr Arg Asp Trp Gln Pro His Gly Thr Val
3565 10115 10120 10125
3566 Leu Ile Thr Gly Gly Thr Gly Ala Leu Gly Ser His Ala Ala Arg Trp
E--> 3567 10130 10135 10140 1
3568 Met Ala His His Gly Ala Glu His Leu Leu Leu Val Ser Arg Ser Gly
E--> 3569 0145 10150 10155 10160
3570 Glu Gln Ala Pro Gly Ala Thr Gln Leu Thr Ala Glu Leu Thr Ala Ser
3571 10165 10170 10175
3572 Gly Ala Arg Val Thr Ile Ala Ala Cys Asp Val Ala Asp Pro His Ala
3573 10180 10185 10190
3574 Met Arg Thr Leu Leu Asp Ala Ile Pro Ala Glu Thr Pro Leu Thr Ala
3575 10195 10200 10205
3576 Val Val His Thr Ala Gly Ala Pro Gly Gly Asp Pro Leu Asp Val Thr
E--> 3577 10210 10215 10220 1
3578 Gly Pro Glu Asp Ile Ala Arg Ile Leu Gly Ala Lys Thr Ser Gly Ala
E--> 3579 0225 10230 10235 10240
3580 Glu Val Leu Asp Asp Leu Leu Arg Gly Thr Pro Leu Asp Ala Phe Val
3581 10245 10250 10255
3582 Leu Tyr Ser Ser Asn Ala Gly Val Trp Gly Ser Gly Ser Gln Gly Val
3583 10260 10265 10270
3584 Tyr Ala Ala Ala Asn Ala His Leu Asp Ala Leu Ala Ala Arg Arg Arg
3585 10275 10280 10285
3586 Ala Arg Gly Glu Thr Ala Thr Ser Val Ala Trp Gly Leu Trp Ala Gly
E--> 3587 10290 10295 10300 1
3588 Asp Gly Met Gly Arg Gly Ala Asp Asp Ala Tyr Trp Gln Arg Arg Gly
E--> 3589 0305 10310 10315 10320
3590 Ile Arg Pro Met Ser Pro Asp Arg Ala Leu Asp Glu Leu Ala Lys Ala
3591 10325 10330 10335
3592 Leu Ser His Asp Glu Thr Phe Val Ala Val Ala Asp Val Asp Trp Glu
3593 10340 10345 10350
3594 Arg Phe Ala Pro Ala Phe Thr Val Ser Arg Pro Ser Leu Leu Leu Asp
3595 10355 10360 10365
3596 Gly Val Pro Glu Ala Arg Gln Ala Leu Ala Ala Pro Val Gly Ala Pro
E--> 3597 10370 10375 10380 1
3598 Ala Pro Gly Asp Ala Ala Val Ala Pro Thr Gly Gln Ser Ser Ala Leu
E--> 3599 0385 10390 10395 10400
3600 Ala Ala Ile Thr Ala Leu Pro Glu Pro Glu Arg Arg Pro Ala Leu Leu
3601 10405 10410 10415
3602 Thr Leu Val Arg Thr His Ala Ala Val Leu Gly His Ser Ser Pro

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3603	10420	10425	10430
3604	Asp Arg Val Ala Pro Gly Arg Ala Phe Thr Glu Leu Gly Phe Asp Ser		
3605	10435	10440	10445
3606	Leu Thr Ala Val Gln Leu Arg Asn Gln Leu Ser Thr Val Val Gly Asn		
E--> 3607	10450	10455	10460
3608	Arg Leu Pro Ala Thr Thr Val Phe Asp His Pro Thr Pro Ala Ala Leu		
E--> 3609	0465	10470	10475
3610	Ala Ala His Leu His Glu Ala Tyr Leu Ala Pro Ala Glu Pro Ala Pro		
3611	10485	10490	10495
3612	Thr Asp Trp Glu Gly Arg Val Arg Arg Ala Leu Ala Glu Leu Pro Leu		
3613	10500	10505	10510
3614	Asp Arg Leu Arg Asp Ala Gly Val Leu Asp Thr Val Leu Arg Leu Thr		
3615	10515	10520	10525
3616	Gly Ile Glu Pro Glu Pro Gly Ser Gly Ser Asp Gly Gly Ala Ala		
E--> 3617	10530	10535	10540
3618	Asp Pro Gly Ala Glu Pro Glu Ala Ser Ile Asp Asp Leu Asp Ala Glu		
E--> 3619	0545	10550	10555
3620	Ala Leu Ile Arg Met Ala Leu Gly Pro Arg Asn Thr Met Thr Ser Ser		
3621	10565	10570	10575
3622	Asn Glu Gln Leu Val Asp Ala Leu Arg Ala Ser Leu Lys Glu Asn Glu		
3623	10580	10585	10590
3624	Glu Leu Arg Lys Glu Ser Arg Arg Arg Ala Asp Arg Arg Gln Glu Pro		
3625	10595	10600	10605
3626	Met Ala Ile Val Gly Met Ser Cys Arg Phe Ala Gly Gly Ile Arg Ser		
E--> 3627	10610	10615	10620
3628	Pro Glu Asp Leu Trp Asp Ala Val Ala Ala Gly Lys Asp Leu Val Ser		
E--> 3629	0625	10630	10635
3630	Glu Val Pro Glu Glu Arg Gly Trp Asp Ile Asp Ser Leu Tyr Asp Pro		
3631	10645	10650	10655
3632	Val Pro Gly Arg Lys Gly Thr Thr Val Arg Asn Ala Ala Phe Leu		
3633	10660	10665	10670
3634	Asp Asp Ala Ala Gly Phe Asp Ala Ala Phe Phe Gly Ile Ser Pro Arg		
3635	10675	10680	10685
3636	Glu Ala Leu Ala Met Asp Pro Gln Gln Arg Gln Leu Leu Glu Ala Ser		
E--> 3637	10690	10695	10700
3638	Trp Glu Val Phe Glu Arg Ala Gly Ile Asp Pro Ala Ser Val Arg Gly		
E--> 3639	0705	10710	10715
3640	Thr Asp Val Gly Val Tyr Val Gly Cys Gly Tyr Gln Asp Tyr Ala Pro		
3641	10725	10730	10735
3642	Asp Ile Arg Val Ala Pro Glu Gly Thr Gly Gly Tyr Val Val Thr Gly		
3643	10740	10745	10750
3644	Asn Ser Ser Ala Val Ala Ser Gly Arg Ile Ala Tyr Ser Leu Gly Leu		
3645	10755	10760	10765
3646	Glu Gly Pro Ala Val Thr Val Asp Thr Ala Cys Ser Ser Ser Leu Val		
E--> 3647	10770	10775	10780
3648	Ala Leu His Leu Ala Leu Lys Gly Leu Arg Asn Gly Asp Cys Ser Thr		
E--> 3649	0785	10790	10795
3650	Ala Leu Val Gly Gly Val Ala Val Leu Ala Thr Pro Gly Ala Phe Ile		
3651	10805	10810	10815

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Input Set : A:\Sequence Listing.txt
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3652	Glu Phe Ser Ser Gln Gln Ala Met Ala Ala Asp Gly Arg Thr Lys Gly
3653	10820 10825 10830
3654	Phe Ala Ser Ala Ala Asp Gly Leu Ala Trp Gly Glu Gly Val Ala Val
3655	10835 10840 10845
3656	Leu Leu Leu Glu Arg Leu Ser Asp Ala Arg Arg Lys Gly His Arg Val
E--> 3657	10850 10855 10860 1
3658	Leu Ala Val Val Arg Gly Ser Ala Ile Asn Gln Asp Gly Ala Ser Asn
E--> 3659	0865 10870 10875 10880
3660	Gly Leu Thr Ala Pro His Gly Pro Ser Gln Gln His Leu Ile Arg Gln
3661	10885 10890 10895
3662	Ala Leu Ala Asp Ala Arg Leu Thr Ser Ser Asp Val Asp Val Val Glu
3663	10900 10905 10910
3664	Gly His Gly Thr Gly Thr Arg Leu Gly Asp Pro Ile Glu Ala Gln Ala
3665	10915 10920 10925
3666	Leu Leu Ala Thr Tyr Gly Gln Gly Arg Ala Pro Gly Gln Pro Leu Arg
E--> 3667	10930 10935 10940 1
3668	Leu Gly Thr Leu Lys Ser Asn Ile Gly His Thr Gln Ala Ala Ser Gly
E--> 3669	0945 10950 10955 10960
3670	Val Ala Gly Val Ile Lys Met Val Gln Ala Leu Arg His Gly Val Leu
3671	10965 10970 10975
3672	Pro Lys Thr Leu His Val Asp Glu Pro Thr Asp Gln Val Asp Trp Ser
3673	10980 10985 10990
3674	Ala Gly Ser Val Glu Leu Leu Thr Glu Ala Val Asp Trp Pro Glu Arg
3675	10995 11000 11005
3676	Pro Gly Arg Leu Arg Arg Ala Gly Val Ser Ala Phe Gly Val Gly Gly
E--> 3677	11010 11015 11020 1
3678	Thr Asn Ala His Val Val Leu Glu Glu Ala Pro Ala Val Glu Glu Ser
E--> 3679	1025 11030 11035 11040
3680	Pro Ala Val Glu Pro Pro Ala Gly Gly Val Val Pro Trp Pro Val
3681	11045 11050 11055
3682	Ser Ala Lys Thr Ser Ala Ala Leu Asp Ala Gln Ile Gly Gln Leu Ala
3683	11060 11065 11070
3684	Ala Tyr Ala Glu Asp Arg Thr Asp Val Asp Pro Ala Val Ala Ala Arg
3685	11075 11080 11085
3686	Ala Leu Val Asp Ser Arg Thr Ala Met Glu His Arg Ala Val Ala Val
E--> 3687	11090 11095 11100 1
3688	Gly Asp Ser Arg Glu Ala Leu Arg Asp Ala Leu Arg Met Pro Glu Gly
E--> 3689	1105 11110 11115 11120
3690	Leu Val Arg Gly Thr Val Thr Asp Pro Gly Arg Val Ala Phe Val Phe
3691	11125 11130 11135
3692	Pro Gly Gln Gly Thr Gln Trp Ala Gly Met Gly Ala Glu Leu Leu Asp
3693	11140 11145 11150
3694	Ser Ser Pro Glu Phe Ala Ala Met Ala Glu Cys Glu Thr Ala Leu
3695	11155 11160 11165
3696	Ser Pro Tyr Val Asp Trp Ser Leu Glu Ala Val Val Arg Gln Ala Pro
E--> 3697	11170 11175 11180 1
3698	Ser Ala Pro Thr Leu Asp Arg Val Asp Val Val Gln Pro Val Thr Phe
E--> 3699	11185 11190 11195 11200
3700	Ala Val Met Val Ser Leu Ala Lys Val Trp Gln His His Gly Ile Thr

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Input Set : A:\Sequence Listing.txt
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3701	11205	11210	11215
3702	Pro Glu Ala Val Ile Gly His Ser Gln Gly Glu Ile Ala Ala Ala Tyr		
3703	11220	11225	11230
3704	Val Ala Gly Ala Leu Thr Leu Asp Asp Ala Ala Arg Val Val Thr Leu		
3705	11235	11240	11245
3706	Arg Ser Lys Ser Ile Ala Ala His Leu Ala Gly Lys Gly Gly Met Ile		
E--> 3707	11250	11255	11260
3708	Ser Leu Ala Leu Ser Glu Glu Ala Thr Arg Gln Arg Ile Glu Asn Leu		
E--> 3709	1265	11270	11275
3710	His Gly Leu Ser Ile Ala Ala Val Asn Gly Pro Thr Ala Thr Val Val		
3711	11285	11290	11295
3712	Ser Gly Asp Pro Thr Gln Ile Gln Glu Leu Ala Gln Ala Cys Glu Ala		
3713	11300	11305	11310
3714	Asp Gly Ile Arg Ala Arg Ile Ile Pro Val Asp Tyr Ala Ser His Ser		
3715	11315	11320	11325
3716	Ala His Val Glu Thr Ile Glu Asn Glu Leu Ala Asp Val Leu Ala Gly		
E--> 3717	11330	11335	11340
3718	Leu Ser Pro Gln Thr Pro Gln Val Pro Phe Phe Ser Thr Leu Glu Gly		
E--> 3719	1345	11350	11355
3720	Thr Trp Ile Thr Glu Pro Ala Leu Asp Gly Gly Tyr Trp Tyr Arg Asn		
3721	11365	11370	11375
3722	Leu Arg His Arg Val Gly Phe Ala Pro Ala Val Glu Thr Leu Ala Thr		
3723	11380	11385	11390
3724	Asp Glu Gly Phe Thr His Phe Ile Glu Val Ser Ala His Pro Val Leu		
3725	11395	11400	11405
3726	Thr Met Thr Leu Pro Asp Lys Val Thr Gly Leu Ala Thr Leu Arg Arg		
E--> 3727	11410	11415	11420
3728	Glu Asp Gly Gly Gln His Arg Leu Thr Thr Ser Leu Ala Glu Ala Trp		
E--> 3729	1425	11430	11435
3730	Ala Asn Gly Leu Ala Leu Asp Trp Ala Ser Leu Leu Pro Ala Thr Gly		
3731	11445	11450	11455
3732	Ala Leu Ser Pro Ala Val Pro Asp Leu Pro Thr Tyr Ala Phe Gln His		
3733	11460	11465	11470
3734	Arg Ser Tyr Trp Ile Ser Pro Ala Gly Pro Gly Glu Ala Pro Ala His		
3735	11475	11480	11485
3736	Thr Ala Ser Gly Arg Glu Ala Val Ala Glu Thr Gly Leu Ala Trp Gly		
E--> 3737	11490	11495	11500
3738	Pro Gly Ala Glu Asp Leu Asp Glu Glu Gly Arg Arg Ser Ala Val Leu		
E--> 3739	1505	11510	11515
3740	Ala Met Val Met Arg Gln Ala Ala Ser Val Leu Arg Cys Asp Ser Pro		
3741	11525	11530	11535
3742	Glu Glu Val Pro Val Asp Arg Pro Leu Arg Glu Ile Gly Phe Asp Ser		
3743	11540	11545	11550
3744	Leu Thr Ala Val Asp Phe Arg Asn Arg Val Asn Arg Leu Thr Gly Leu		
3745	11555	11560	11565
3746	Gln Leu Pro Pro Thr Val Val Phe Gln His Pro Thr Pro Val Ala Leu		
E--> 3747	11570	11575	11580
3748	Ala Glu Arg Ile Ser Asp Glu Leu Ala Glu Arg Asn Trp Ala Val Ala		
E--> 3749	1585	11590	11595
			11600

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Input Set : A:\Sequence Listing.txt
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3750	Glu Pro Ser Asp His Glu Gln Ala Glu Glu Lys Ala Ala Ala Pro			
3751	11605	11610	11615	
3752	Ala Gly Ala Arg Ser Gly Ala Asp Thr Gly Ala Gly Ala Gly Met Phe			
3753	11620	11625	11630	
3754	Arg Ala Leu Phe Arg Gln Ala Val Glu Asp Asp Arg Tyr Gly Glu Phe			
3755	11635	11640	11645	
3756	Leu Asp Val Leu Ala Glu Ala Ser Ala Phe Arg Pro Gln Phe Ala Ser			
E--> 3757	11650	11655	11660	1
3758	Pro Glu Ala Cys Ser Glu Arg Leu Asp Pro Val Leu Leu Ala Gly Gly			
E--> 3759	1665	11670	11675	11680
3760	Pro Thr Asp Arg Ala Glu Gly Arg Ala Val Leu Val Gly Cys Thr Gly			
3761	11685	11690	11695	
3762	Thr Ala Ala Asn Gly Gly Pro His Glu Phe Leu Arg Leu Ser Thr Ser			
3763	11700	11705	11710	
3764	Phe Gln Glu Glu Arg Asp Phe Leu Ala Val Pro Leu Pro Gly Tyr Gly			
3765	11715	11720	11725	
3766	Thr Gly Thr Gly Thr Gly Thr Ala Leu Leu Pro Ala Asp Leu Asp Thr			
E--> 3767	11730	11735	11740	1
3768	Ala Leu Asp Ala Gln Ala Arg Ala Ile Leu Arg Ala Ala Gly Asp Ala			
E--> 3769	1745	11750	11755	11760
3770	Pro Val Val Leu Leu Gly His Ser Gly Gly Ala Leu Leu Ala His Glu			
3771	11765	11770	11775	
3772	Leu Ala Phe Arg Leu Glu Arg Ala His Gly Ala Pro Pro Ala Gly Ile			
3773	11780	11785	11790	
3774	Val Leu Val Asp Pro Tyr Pro Pro Gly His Gln Glu Pro Ile Glu Val			
3775	11795	11800	11805	
3776	Trp Ser Arg Gln Leu Gly Glu Gly Leu Phe Ala Gly Glu Leu Glu Pro			
E--> 3777	11810	11815	11820	1
3778	Met Ser Asp Ala Arg Leu Leu Ala Met Gly Arg Tyr Ala Arg Phe Leu			
E--> 3779	1825	11830	11835	11840
3780	Ala Gly Pro Arg Pro Gly Arg Ser Ser Ala Pro Val Leu Leu Val Arg			
3781	11845	11850	11855	
3782	Ala Ser Glu Pro Leu Gly Asp Trp Gln Glu Glu Arg Gly Asp Trp Arg			
3783	11860	11865	11870	
3784	Ala His Trp Asp Leu Pro His Thr Val Ala Asp Val Pro Gly Asp His			
3785	11875	11880	11885	
3786	Phe Thr Met Met Arg Asp His Ala Pro Ala Val Ala Glu Ala Val Leu			
E--> 3787	11890	11895	11900	1
3788	Ser Trp Leu Asp Ala Ile Glu Gly Ile Glu Gly Ala Gly Lys Met Thr			
E--> 3789	1905	11910	11915	11920
3790	Asp Arg Pro Leu Asn Val Asp Ser Gly Leu Trp Ile Arg Arg Phe His			
3791	11925	11930	11935	
3792	Pro Ala Pro Asn Ser Ala Val Arg Leu Val Cys Leu Pro His Ala Gly			
3793	11940	11945	11950	
3794	Gly Ser Ala Ser Tyr Phe Phe Arg Phe Ser Glu Glu Leu His Pro Ser			
3795	11955	11960	11965	
3796	Val Glu Ala Leu Ser Val Gln Tyr Pro Gly Arg Gln Asp Arg Arg Ala			
E--> 3797	11970	11975	11980	1
3798	Glu Pro Cys Leu Glu Ser Val Glu Glu Leu Ala Glu His Val Val Ala			

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Input Set : A:\Sequence Listing.txt
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E--> 3799	1985	11990	11995	12000
3800	Ala Thr Glu Pro Trp Trp Gln Glu Gly Arg Leu Ala Phe Phe Gly His			
3801	12005	12010	12015	
3802	Ser Leu Gly Ala Ser Val Ala Phe Glu Thr Ala Arg Ile Leu Glu Gln			
3803	12020	12025	12030	
3804	Arg His Gly Val Arg Pro Glu Gly Leu Tyr Val Ser Gly Arg Arg Ala			
3805	12035	12040	12045	
3806	Pro Ser Leu Ala Pro Asp Arg Leu Val His Gln Leu Asp Asp Arg Ala			
E--> 3807	12050	12055	12060	1
3808	Phe Leu Ala Glu Ile Arg Arg Leu Ser Gly Thr Asp Glu Arg Phe Leu			
E--> 3809	2065	12070	12075	12080
3810	Gln Asp Asp Glu Leu Leu Arg Leu Val Leu Pro Ala Leu Arg Ser Asp			
3811	12085	12090	12095	
3812	Tyr Lys Ala Ala Glu Thr Tyr Leu His Arg Pro Ser Ala Lys Leu Thr			
3813	12100	12105	12110	
3814	Cys Pro Val Met Ala Leu Ala Gly Asp Arg Asp Pro Lys Ala Pro Leu			
3815	12115	12120	12125	
3816	Asn Glu Val Ala Glu Trp Arg Arg His Thr Ser Gly Pro Phe Cys Leu			
E--> 3817	12130	12135	12140	1
3818	Arg Ala Tyr Ser Gly Gly His Phe Tyr Leu Asn Asp Gln Trp His Glu			
E--> 3819	2145	12150	12155	12160
3820	Ile Cys Asn Asp Ile Ser Asp His Leu Leu Val Thr Arg Gly Ala Pro			
3821	12165	12170	12175	
3822	Asp Ala Arg Val Val Gln Pro Pro Thr Ser Leu Ile Glu Gly Ala Ala			
3823	12180	12185	12190	
3824	Lys Arg Trp Gln Asn Pro Arg			
E--> 3825	12195	1		
3830	<210> SEQ ID NO: 7			
3831	<211> LENGTH: 1248			
3832	<212> TYPE: DNA			
3833	<213> ORGANISM: Streptomyces venezuelae			
3835	<400> SEQUENCE: 7			
E--> 3836	gtgaaaagcg ccttatccga cctcgcattc ttccggcgcc ccgcgcgttt cgaccagccg			
3837	60			
E--> 3838	ctcctcggtgg ggccggccaa ccgcacatcgac cgcgccaggc tgtacgagcg gctcgaccgg			
3839	120			
E--> 3840	gccctcgaca gccagtggct gtccaaacggc ggcccgctcg tccgcgagtt cgaggagcgc			
3841	180			
E--> 3842	gtcgccgggc tcgcccgggt ccggcatgcc gtggccaccc gcaacgccac ggccgggctc			
3843	240			
E--> 3844	cagctcctcg cgcacgcccgc cggcctcacc ggcgaagtga tcatgcccgc gatgacgttc			
3845	300			
E--> 3846	ggccgcaccc cgacacgact ggcgtggatc ggctcaccc cggcttgcgc cgacatcgac			
3847	360			
E--> 3848	ccggacaccc gcaacctcgaa cccggaccag gtggccggccg cggtcacacc ccgcacaccc			
3849	420			
E--> 3850	ggcgctcg gcttccaccc ctggggccgc ccctgcgcgc ccgaccagct gcggaagggtc			
3851	480			
E--> 3852	ggcgacgagc acggcctcgac gctgtacttc gacgccgcgc acggccctcgac ctgcgcggc			

pp.32-52
Errors - See error
summary sheet, Item 1

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PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

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3853      540
E--> 3854      gacggccggc ccgccggcag cctcgccgac gccgaggct tcagcttcca cgccaccaag
3855      600
E--> 3856      gccgtcaacg ctttcgaggg cggcgccgac gtcaccgacg acgccgaccc cggcccccgg
3857      660
E--> 3858      atccgcgccc tccacaactt cggcttcgac ctgcccggcg gcagccccgc cggcgggacc
3859      720
E--> 3860      aacgccaaga tgagcgaggc cgccgcccgc atgggccta cctccctcga cgcgttccc
3861      780
E--> 3862      gaggtcatcg accggaaccg ggcgaaccac gccgcctacc gcgagcacct cgcggacctc
3863      840
E--> 3864      cccggcgtcc tcgtcgccga ccacgaccgc cacggcctca acaaccacca gtacgtgatc
3865      900
E--> 3866      gtcgagatcg acgaggccac caccggcatc caccgcgacc tcgtcatgga ggtcctgaag
3867      960
E--> 3868      gccgaaggcg tgcacacccg cgcctacttc tcgcccggct gccacgagct ggagccgtac
3869      1020
E--> 3870      cgcggcagc cgcacgcccc gctgccgcac accgaacgcc tcgcccgcgc cgtgctgtcc
3871      1080
E--> 3872      ctgcccggccg gcacccgcat cggcgacgac gacatccgcc gggtcgcccga cctgctgcgt
3873      1140
E--> 3874      ctctgcgcga cccggggccg cgaactgacc gcgcgcacc ggcacacggc cccggccccg
3875      1200
E--> 3876      ctcgcggccc cccagacatc cacgcccacg attggacgct cccgatga
3877      1248
3938 <210> SEQ ID NO: 9
3939 <211> LENGTH: 1458
3940 <212> TYPE: DNA
3941 <213> ORGANISM: Streptomyces venezuelae
3943 <400> SEQUENCE: 9
E--> 3944      atgaccgcgc cccgccttc cgccaccgc cccggccgaaac gctgcgcgc cccggagcc
3945      60
E--> 3946      gatctgggg cggcggtcca cgcgtcgcc cagaccctcg cccggccgg cctcggtccg
3947      120
E--> 3948      cccgacgagg cccggacgc cgcgcgcac ctcgtccggc tcgcccgtgc ctacggcaac
3949      180
E--> 3950      agccccctca ccccgctgga ggaggccgc caccgacctgg gcgtcgaccg ggacgccttc
3951      240
E--> 3952      cggcgctcc tcgcccgttt cggcgaggc cccggacgtcc gcaccgcgg ctagaccggc
3953      300
E--> 3954      cccggccggg cgtactggaa gaacaccctg ctcggctcg aacagcgccg cgtcttcgac
3955      360
E--> 3956      gcggcgctcg ccaggaagcc cgtctcccg tacagcgctcg gcctctaccc cggccgcacc
3957      420
E--> 3958      tgcgttgtcc gctgccactt ctgcgtccgt gtgaccggcg cccgctacga cccgtccgac
3959      480
E--> 3960      ctcgacgccc gcaacgccc gttccggctcg gtcatcgacg agataccgc gggcaacccc
3961      540
E--> 3962      tcggcgatgt acttctccgg cggcctggag cgcgtccacca accccggcct cgggagcctg

```

RAW SEQUENCE LISTING
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DATE: 11/26/2001
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

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3963 600
E--> 3964 gccgcgcacg ccaccgacca cggcctgcgg cccaccgtct acacgaactc cttcgcgctc
3965 660
E--> 3966 accgagcgca ccctggagcg ccagccggc ctctgggcc tgcacgccat cgcacacctcg
3967 720
E--> 3968 ctctacggcc tcaacgacga ggagtacgag cagaccaccc gcaagaaggc cgcctccgc
3969 780
E--> 3970 cgcgtccgcg agaacctgcg cgcgttccag cagctgcgcg cgcgcgcga gtcgcgcata
3971 840
E--> 3972 aacctcggt tcgcctacat cgtgctcccgg ggcgcgtgcct cccgcctgct cgacctggtc
3973 900
E--> 3974 gacttcatcg cgcacctcaa cgacgcgcgg cagggcagga cgatcgactt cgtcaacatt
3975 960
E--> 3976 cgcgaggact acagcggccg tgacgacggc aagctgcgcg aggaggagcg ggcgcgactc
3977 1020
E--> 3978 caggaggccc tcaacgcctt cgaggagcgg gtccgcgagc gcaccccccgg actccacatc
3979 1080
E--> 3980 gactacggct acgcctgaa cgcctgcgc accggggccg acgcctaact gctgcggatc
3981 1140
E--> 3982 aagccgcaca ccatgcggcc caccgcgcac cgcaggatcg cggtgcaagg cgatctccctc
3983 1200
E--> 3984 ggcgcacgtgt acctgtaccc cgaggccggc ttccccgacc tggacggcgc gacccgtac
3985 1260
E--> 3986 atcgcgggcc gcgtgacccc cgacacctcc ctcaccgagg tcgtcaggga cttcgatcgag
3987 1320
E--> 3988 cgcggcggcg aggtggcggc cgtcacggc gacgagtaact tcatggacgg cttcgatcag
3989 1380
E--> 3990 gtcgtcaccg cccgcctgaa ccagctggag cgcgcacggc cggacggctg ggaggaggcc
3991 1440
E--> 3992 cgcgcgttcc tgcgtgaa
3993 1458
4064 <210> SEQ ID NO: 11
4065 <211> LENGTH: 879
4066 <212> TYPE: DNA
4067 <213> ORGANISM: Streptomyces venezuelae
4069 <400> SEQUENCE: 11
E--> 4070 atgaaggaa tagtcctggc cggcgggagc ggaactcgcc tgcatccggc gacctcggtc
4071 60
E--> 4072 atttcaagc agattcttcc ggtctacaac aaaccgatga tctactatcc gctgtcggtt
4073 120
E--> 4074 ctcatgtcg gcggtattcg cgagattcaa atcatctcgatcc ccccccggc catcgaaactc
4075 180
E--> 4076 ttccagtcgc ttctcgaaa cggcaggcac ctggaaatag aactcgacta tgcggtccag
4077 240
E--> 4078 aaagagcccg caggaatcgc ggacgcactt ctcgtcgag ccgagcacat cggcgcacgac
4079 300
E--> 4080 acctgcgcgc tgatcctggc cgacaacatc ttccacgggc cggcctcta cacgctccctg
4081 360
E--> 4082 cgggacagca tcgcgcgcct cgacggctgc gtgcgttccg gctacccggt caaggacccc

```

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DATE: 11/26/2001
TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

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4083 420
E--> 4084 gaggcggtacg gcgtcgccga ggtggacgcg acggggccggc tgaccgacct cgtcgagaag
4085 480
E--> 4086 cccgtcaagc cgcgctccaa cctcgccgtc accggcctct acctctacga caacgacgtc
4087 540
E--> 4088 gtgcacatcg ccaagaacat ccggccctcg ccgcgcggcg agctggagat caccgacgtc
4089 600
E--> 4090 aaccgcgtct acctggagcg gggccgggccc gaactcgta acctggggcg cggcttcgcc
4091 660
E--> 4092 tggctggaca ccggcaccca cgactcgctc ctgcggggcg cccagtacgt ccaggtcctg
4093 720
E--> 4094 gaggagcggc agggcgtctg gatcgccggc cttgaggaga tcgccttccg catgggcttc
4095 780
E--> 4096 atcgacgccc aggccctgtca cggcctggga gaaggcctct cccgcaccga gtacggcagc
4097 840
E--> 4098 tatctgatgg agatcgccgg ccgcgaggga gccccgtga
4099 879
4146 <210> SEQ ID NO: 13
4147 <211> LENGTH: 1014
4148 <212> TYPE: DNA
4149 <213> ORGANISM: Streptomyces venezuelae
4151 <400> SEQUENCE: 13
E--> 4152 gtgcgcgttc tggtgaccgg aggtgcgggc ttcatcggt cgcaattcggt gcggcagctc
4153 60
E--> 4154 ctcgcgggg cgtaccccgta cgtccccggc gatgaggtga tcgtccttggaa cagcctcacc
4155 120
E--> 4156 tacgcgggca accgcgc当地 cctcgccccg gtggacgcgg acccgcaact ggcgttcgtc
4157 180
E--> 4158 cacggcgaca tccgcgacgc cggcctcctc gcccgggaac tgccgcggcg ggacgc当地
4159 240
E--> 4160 gtccacttcg cggccgagag ccacgtggac cgctccatcg cggcgcgtc cgtgttccacc
4161 300
E--> 4162 gagaccaacg tgcagggcac gcagacgtc ctccagtgcg cgcgtcgc当地 cggcgtcggc
4163 360
E--> 4164 cgggtcgtgc acgtctccac cgacgagggtg tacgggtcga tcgactccgg ctccctggacc
4165 420
E--> 4166 gagacgagcc cgctggagcc caactcgccc tacgcggcggt ccaaggccgg ctccgacctc
4167 480
E--> 4168 gttgcggcg cctaccaccc gacgtacggc ctcgacgtac ggatcaccgg ctgctgcaac
4169 540
E--> 4170 aactacgggc cgtaccagca ccccgagaag ctcatcccc tcttcgtgac gaacctccctc
4171 600
E--> 4172 gacggcgaaa cgctcccgct gtacggcgac ggccgc当地 acg tccgcgagtg ggtgcacacc
4173 660
E--> 4174 gacgaccact gccggggcat cgcgc当地 ctcgcggcg gcccggccgg cgagatctac
4175 720
E--> 4176 cacatcgccg gcggccttggaa gctgaccaac cgc当地 actca cggcatacct cctggactcg
4177 780
E--> 4178 ctcggcgccg actggtcctc ggtccggaaag gtcgc当地 gacc gcaaggccca cgacactgc当地

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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

4179 840
E--> 4180 tactccctcg acggcggcga gatcgagcgc gagctcggtt accgcccga ggtctccccc
4181 900
E--> 4182 gcggacggcc tcgcgcggac cgtccgctgg taccggaga accgcggctg gtgggagccg
4183 960
E--> 4184 ctcaaggcga ccgcggcga gctggccggcc accgcggctgg aggtgtccgc gtga
4185 1014
4238 <210> SEQ ID NO: 15
4239 <211> LENGTH: 1140
4240 <212> TYPE: DNA
4241 <213> ORGANISM: Streptomyces venezuelae
4243 <400> SEQUENCE: 15
E--> 4244 gtgagcagcc gcgcgcgagac ccccgcgtc cccttcctcg acctaaggc cgccctacgag
4245 60
E--> 4246 gagctccgcg cggagaccga cgcgcgatc gcccgcgtcc tcgactcggtt ggcgtaccc
4247 120
E--> 4248 ctcggacccg aactcgaagg attcgaggcg gagttcgccg cgtactgcga gacggaccac
4249 180
E--> 4250 gccgtcggcg tgaacagcgg gatggacgcc ctccagctcg ccctccgcgg cctcggcatc
4251 240
E--> 4252 ggaccgggg acgaggttat cgtccctcg cacacgtaca tcgcccagctg gtcgcgggt
4253 300
E--> 4254 tccgcacccg gcgcgcaccc cgtgcccgtc gagccgcacg aggaccaccc caccctggac
4255 360
E--> 4256 ccgctgctcg tcgagaaggc gatcaccccc cgcacccggc cgctccctccc cgtccaccc
4257 420
E--> 4258 tacgggcacc cgcgcacat ggacgcgcgc cgcgcgcgtc cggaccggca cggcctgcac
4259 480
E--> 4260 atcgtcgagg acgcccgcga ggcccacggc gcccgcgtacc gggccggcg gatcggcgcc
4261 540
E--> 4262 gggtcgtcggtt tggccgcgtt cagttctac ccggcaaga acctcggtt cttcgccgac
4263 600
E--> 4264 ggcggcgccg tcgtcaccgg cgaccccgag ctcgcgcac ggctccggat gtcgcgcac
4265 660
E--> 4266 tacggctcg cgcagaagta cagccacgag acgaaggca ccaactcccg cctggacgag
4267 720
E--> 4268 atgcaggccg ccgtgctcg gatccggctc gcccacctgg acagctggaa cggccgcagg
4269 780
E--> 4270 tcggcgctgg cgcggagta cctctccggc ctcgcgcac tgccggcat cggcctgcgg
4271 840
E--> 4272 gtgaccgcgc cgcacaccga cccggcttg cacctttca cctgcgcac cgagcggccgc
4273 900
E--> 4274 gacgagctgc gcagccacct cgacgcgcgc ggcacgcaca ccctcagca ctacccggta
4275 960
E--> 4276 cccgtgcacc ttcgcggcgc ctacgcggc gaggcaccgc cggaaggctc gtcggcgcc
4277 1020
E--> 4278 gcccggagct tcgcgcggca ggtcctcagc ctgcgcgtatc gcccgcaccc ggagcggcc
4279 1080
E--> 4280 caggcgctgc gggtgatcga cgcgcgtgcga gaatggccgg agcgggtcga ccaggccat

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DATE: 11/26/2001
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

4281 1140
 4338 <210> SEQ ID NO: 17
 4339 <211> LENGTH: 714
 4340 <212> TYPE: DNA
 4341 <213> ORGANISM: Streptomyces venezuelae
 4343 <400> SEQUENCE: 17
 E--> 4344 gtgtacgaag tcgaccacgc cgacgtctac gacctttct acctgggtcg cggcaaggac
 4345 60
 E--> 4346 tacgcgcgcg aggcctccga catgcgcgcac ctggtgcgct cccgtacccc cgaggcctcc
 4347 120
 E--> 4348 tcgctcctgg acgtggcctg cggtaacgggc acgcatactgg agcaacttcac caaggagttc
 4349 180
 E--> 4350 ggcgacacccg ccggcctgga gctgtccgag gacatgctca cccacgccc caagcggctg
 4351 240
 E--> 4352 cccgacgcca cgctccacca gggcgacatg cgggacttcc ggctcgcccg gaagttctcc
 4353 300
 E--> 4354 gccgtggtca gcatgttcag ctccgtcgcc tacctgaaga cgaccgagga actcggcgcg
 4355 360
 E--> 4356 gccgtcgccct cgttcgccga gcacctggag cccgggtggcg tgcgtcgctcg cgagccgtgg
 4357 420
 E--> 4358 tggttcccg agaccttcgc cgacggctgg gtcagcgccg acgtcgctcg ccgtgacggg
 4359 480
 E--> 4360 cgcaccgtgg cccgtgtctc gcactcggtg cgggagggga acgcgacgctg catggaggct
 4361 540
 E--> 4362 cacttcaccc tggccgaccc gggcaagggc gtgcggact tctccgacgt ccatctcatc
 4363 600
 E--> 4364 accctgttcc accaggccga gtacgaggcc gcgttacagg ccggccggct gcgcgtcgag
 4365 660
 E--> 4366 tacctggagg gcggcccgctc gggccgtggc ctcttcgtcg gcgtccccgc ctga
 4367 714
 4406 <210> SEQ ID NO: 19
 4407 <211> LENGTH: 1281
 4408 <212> TYPE: DNA
 4409 <213> ORGANISM: Streptomyces venezuelae
 4411 <400> SEQUENCE: 19
 E--> 4412 atgcgcgtcc tgctgacctc gttcgacat cacacgcact actacggcct ggtgcccctg
 4413 60
 E--> 4414 gcctggcgcc tgctcgccgc cgggcacgag gtgcgggtcg ccagccagcc cgcgctcact
 4415 120
 E--> 4416 gacaccatca ccgggtccgg gtcgcgcgcg gtgcgggtcg gcacccgacca cctcatccac
 4417 180
 E--> 4418 gagtaccggg tgcggtatggc gggcgagccg cggccgaacc atccggcgat cgccttcgac
 4419 240
 E--> 4420 gaggccccgtc ccgagccgct ggactggac cacgcctcg gcacccgaggc gatcctcgcc
 4421 300
 E--> 4422 ccgtacttcc atctgctcgcaacaacgac tcgatggtgc acgacactcgat cgacttcgccc
 4423 360
 E--> 4424 cggtcctggc agccggaccc ggtgctgtgg gagccgacga cctacgcggg cgccgtcgcc
 4425 420

RAW SEQUENCE LISTING
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DATE: 11/26/2001
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

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E--> 4426 gcccaggtca ccgggtgccgc gcacgccccgg gtcctgtggg ggcccgacgt gatggggcagc
4427 480
E--> 4428 gcccggccca agttcgctcgc gctgcgggac cggcagccgc ccgagcacccg cgaggacccc
4429 540
E--> 4430 accgcggagt ggctgacgtg gacgctcgac cggtaacggcg cctccttcga agaggagctg
4431 600
E--> 4432 ctcaccggcc agttcacatcgat cgacccgacc cggccgagcc tgcgcctcga cacgggcctg
4433 660
E--> 4434 ccgaccgtcg ggatgcgtta tgttccgtac aacggcacgt cggtcgtgcc ggactggctg
4435 720
E--> 4436 agtgagccgc cccgcggcc cccgggtctgc ctgaccctcg gctgtccgc gcgtgaggtc
4437 780
E--> 4438 ctcggcggcg acggcgtctc gcagggcgac atcctggagg cgctcgccga cctcgacatc
4439 840
E--> 4440 gagctcgctcg ccacgctcga cgcgagtcag cgcgcccaga tccgcaacta cccgaagcac
4441 900
E--> 4442 aaccggttca cggacttcgt gccgatgcac gcgctcctgc cgagctgctc ggcgatcatc
4443 960
E--> 4444 caccacggcg gggcgccac ctacgcgacc gccgtgatca acgcgggtgcc gcaggtcatg
4445 1020
E--> 4446 ctcgcccggc tgtgggacgc gccggtaag ggcggggccg tcggcggagca gggggcgcccc
4447 1080
E--> 4448 ttcttcctgc cgccggccga gctcacgccc caggccgtgc gggacgcccgt cgtccgcac
4449 1140
E--> 4450 ctcgacgacc cctcggtcgc caccggcccg caccggctgc gcgaggagac cttcggcgac
4451 1200
E--> 4452 cccaccccgcc cgggatcgt ccccgagctg gagcggctcg cgcgcagca cgcggcccg
4453 1260
E--> 4454 cccggccgacg cccggcactg a
4455 1281
4518 <210> SEQ ID NO: 21
4519 <211> LENGTH: 1209
4520 <212> TYPE: DNA
4521 <213> ORGANISM: Streptomyces venezuelae
4523 <400> SEQUENCE: 21
E--> 4524 gtgaccgacg acctgacggg ggccctcactg cagccccccgc tggccgcac cgtccgcgc
4525 60
E--> 4526 gtggccgacc gtgaactcg caccacactc ctggagaccc gggcatcca ctggatccac
4527 120
E--> 4528 gcccgcgaacg gcgacccgtt cgcacccgtg ctgcgcggcc aggcggacga cccgtatccc
4529 180
E--> 4530 gcgtaacgacg gggtaacgtgc cgcggcgcc ctctccttca gcccacggg cagctgggtc
4531 240
E--> 4532 accgcgcatac acgccttgc ggcgagcatc ctctgctcga cggacttcgg ggtctccggc
4533 300
E--> 4534 gcccgcacggcg tcccggtgcc gcagcagggtc ctctcgatcg gggagggtcg tccgctggag
4535 360
E--> 4536 cgcgacggcagg tgctgcccggc ggccgggtgac gtgcggagg gcccgcacggc tgccgtggtc
4537 420

```

RAW SEQUENCE LISTING
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DATE: 11/26/2001
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

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E--> 4538 gaggggatcc accgggagac gctggagggt ctcgcgcgg acccgtcggc gtcgtacgcc
4539 480
E--> 4540 ttcgagctgc tggcggttt cgtccgccc gcggtgacgg ccgctgccgc cgccgtgctg
4541 540
E--> 4542 ggtgttccc gggaccggcg cgccgacttc gcggatctgc tggagcggct ccggccgctg
4543 600
E--> 4544 tccgacagcc tgctggcccc gcagtccctg cggacggtac gggcggcgga cggcgccgtg
4545 660
E--> 4546 gccgagctca cggcgctgct cgccgattcg gacgactccc ccggggccct gctgtcgccg
4547 720
E--> 4548 ctcgggtca cccgagccgt ccagtcacc gggAACGCGG tgctcgccgt cctcgccat
4549 780
E--> 4550 cccgagcagt ggccggagct gtgcgaccgg cccgggctcg cggcgccgc ggtggaggag
4551 840
E--> 4552 accctccgct acgaccgcgc ggtcagctc gacgcccggg tggccgcgg ggagacggag
4553 900
E--> 4554 ctggcgggcc ggccggctgcc ggccggggcg catgtcgctg tcctgaccgc cgcgaccggc
4555 960
E--> 4556 cgggacccgg aggtcttac ggacccggag cgcttcgacc tcgcgcgcgc cgacgcgcgc
4557 1020
E--> 4558 ggcgcacctcg cgctgcaccc cgcgggtccg tacggccgg tggcgccct ggtccggctt
4559 1080
E--> 4560 caggcggagg tcgcgctgct gaccctggcc gggcgttcc cccggctgct gcaggcgaaaa
4561 1140
E--> 4562 gacgtgctcc gccccggccg cgcgcctgtc ggccgcgggc cgctgagcgt cccggtcagc
4563 1200
E--> 4564 agctcctga
4565 1209
4626 <210> SEQ ID NO: 23
4627 <211> LENGTH: 2430
4628 <212> TYPE: DNA
4629 <213> ORGANISM: Streptomyces venezuelae
4631 <400> SEQUENCE: 23
E--> 4632 gtgacaggta agacccgaat accgcgtgtc cgccgcggcc gcaccacgcc cagggccttc
4633 60
E--> 4634 accctggccg tcgtcgac cctgctggcg ggcaccaccc tggccgcgcgc cgctccggc
4635 120
E--> 4636 gcccggaca cggccaatgt tcagtagacacg agccggggcg cggagctcggt cgcccagatg
4637 180
E--> 4638 acgctcgacg agaagatcag cttcgccac tggcgctgg accccgaccg gcagaacgtc
4639 240
E--> 4640 ggctaccttc cggcggtgcc gcgtctggc atcccgagc tgcgtgcgc gcacggcccg
4641 300
E--> 4642 aacggcatcc gcctggtggg gcagaccgc accgcgtgc cgcgcgggt cgccctggcc
4643 360
E--> 4644 agcacctcg acgacaccat ggccgacagc tacggcaagg tcatggcccg cgacggtcgc
4645 420
E--> 4646 ggcgtcaacc aggacatggt cctggggcccg atgatgaaca acatccgggt gccgcacggc
4647 480

```

RAW SEQUENCE LISTING DATE: 11/26/2001
 PATENT APPLICATION: US/09/988,384 TIME: 15:23:28

Input Set : A:\Sequence Listing.txt
 Output Set: N:\CRF3\11212001\I988384.raw

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E--> 4648 ggccggaact acgagacctt cagcgaggac cccctggtct cctcgcgac cgcggtcgcc
4649 540
E--> 4650 cagatcaagg gcatccaggg tgcgggtctg atgaccacgg ccaagcactt cgcggtcaac
4651 600
E--> 4652 aaccaggaga acaaccgctt ctccgtgaac gccaatgtcg acgagcagac gctccgcgag
4653 660
E--> 4654 atcgagttcc cggcggttcga ggcgtcctcc aaggccggcg cggcctcctt catgtgtgcc
4655 720
E--> 4656 tacaacggcc tcaacggaa gccgtcctgc ggcaacgacg agtcctcaa caacgtgctg
4657 780
E--> 4658 cgcacgcagt ggggcttcca gggctgggtg atgtccgact ggctcgccac cccgggaccc
4659 840
E--> 4660 gacgccccatca ccaagggcct cgaccaggag atgggcgtcg agctccccgg cgacgtcccc
4661 900
E--> 4662 aaggggcgagc cctcgccgccc ggccaagttc ttccggcgagg cgctgaagac ggccgtcctg
4663 960
E--> 4664 aacggcacgg tccccgagggc ggccgtgacg cggtcggcg agcggatcg cggccagatg
4665 1020
E--> 4666 gagaagttcg gtctgctctt cgccactccg ggcgcgcggc ccgagcgcga caaggcggtt
4667 1080
E--> 4668 gcccaggcgg tgtcccgcaa ggtcgccgag aacggcgcgg tgctcctgcg caacgagggc
4669 1140
E--> 4670 caggccctgc cgctcgccgg tgacgcccggc aagagcatcg cggcatcg cccgacggcc
4671 1200
E--> 4672 gtcgacccca aggtcaccgg cctggcagc gcccacgtcg tccggactc ggcggcggcg
4673 1260
E--> 4674 ccactcgaca ccatcaaggc ccgcgcgggt gcgggtgcga cggtgacgta cgagacgggt
4675 1320
E--> 4676 gaggagacct tcgggacgca gatccggcg gggAACCTCA gcccggcgtt caaccaggc
4677 1380
E--> 4678 caccagctcg agccgggcaa ggcggggcg ctgtacgacg gcacgctgac cgtccccgccc
4679 1440
E--> 4680 gacggcgagt accgcattcg ggtccgtgcc accgggtgtt acggcacggt gcagctcgcc
4681 1500
E--> 4682 agccacacca tcgaggccgg tcaggtctac ggcaaggta gcagcccgct cctcaagctg
4683 1560
E--> 4684 accaaggcga cgcacaagct cacgatctcg ggcttcgcga tgagtgcac cccgctctcc
4685 1620
E--> 4686 ctggagctgg gctgggtgac gcccggcg gcccacgcga cgatcgcaaa ggccgtggag
4687 1680
E--> 4688 tcggcgcggaa aggcccgtac ggcgggtcgtc ttccgcctacg acgacggcac cgagggcgtc
4689 1740
E--> 4690 gaccgtccga acctgtcgct gcccgggtacg caggacaagc tgatctcgcc tgtcgcggac
4691 1800
E--> 4692 gccaacccga acacgatcggt ggtccctaac accgggttcgt cggtgctgat gccgtggctg
4693 1860
E--> 4694 tccaaagaccc ggcgcggcct ggacatgtgg taccggggcc aggcggcgcg cggccacc
4695 1920
E--> 4696 gccgcgtgc tctacggta cgtcaaccccg agcggcaagc tcacgcagag cttccggcc

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001

TIME: 15:23:28

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\11212001\I988384.raw

4697 1980
E--> 4698 gcccagaacc agcacgcggt cgccggcgac ccgacaagct acccgggcgt cgacaaccag
4699 2040
E--> 4700 cagaegtacc gcgaggggcat ccacgtcggt taccgctgggt tcgacaagga gaacgtcaag
4701 2100
E--> 4702 cccgctgttcc cggtcgggca cggcctgtcg tacacctcgt tcacgcagag cggcccgacc
4703 2160
E--> 4704 gtcgtgcgta cgtccacggg tggtctgaag gtcacggtca cggtccgcaa cagcgggaag
4705 2220
E--> 4706 cgcgcggcc aggaggtcgt ccaggcgtac ctcggtgcca gccgaaacgt gacggctccg
4707 2280
E--> 4708 caggcgaaga agaagctcgt gggctacacg aaggctcgc tcgcccggg cgaggcgaag
4709 2340
E--> 4710 acgggtacgg tgaacgtcga cccgcgtcag ctgcagaccg gttcgtcctc cggccaccc
4711 2400
E--> 4712 cggggcagcg ccacggtcaa cgtctggta
4713 2430
4840 <210> SEQ ID NO: 26
4841 <211> LENGTH: 1011
4842 <212> TYPE: DNA
4843 <213> ORGANISM: Streptomyces venezuelae
4845 <400> SEQUENCE: 26
E--> 4846 atggcaatgc gcgactccat accgaggcga gcggaccgcg acaccctcg cccgaaatta
4847 60
E--> 4848 ggccagaact tccttcagga cgacagagcc gtgcgcaatc tcgtcacgca tgtcgagggg
4849 120
E--> 4850 gacggtagga acgttctcga aatcgcccc ggaaaggcg cgataaccga ggagttggtg
4851 180
E--> 4852 cgctccttcg acaccgtgac ggtcgtggag atggaccgc actggccgc gcatgtgcgg
4853 240
E--> 4854 cggaaattcg aaggggagag ggtcaccgta ttccagggtg atttcctcga cttccgcatt
4855 300
E--> 4856 cccgcgata tcgacaccgt cgtcgaaac gttcccttcg gatcaccgac ccagatttc
4857 360
E--> 4858 cggagtctcc tggaatcgac gaactggcag tcggccggcc tgatagtgca gtgggaggc
4859 420
E--> 4860 gcccgc当地 gcgccggc cagggcggta tcgctccat cggaccctcg ggccccctgg
4861 480
E--> 4862 tacgagttcg cggccacga cccgcgtccgc gcctcgtcgt tccgtccgat gccccgcgtc
4863 540
E--> 4864 gacggcggcg tcctgacat caggcgcgc cccagcccc tgctgcccga gagcgcgagc
4865 600
E--> 4866 cgcgccttc agaacttcgc cgaagccgtc ttcaccggcc cggacgggg cctcgccgag
4867 660
E--> 4868 atcctccggc gccacatccc caagcggacc taccgttccc tcgcccaccg ccacggaaatt
4869 720
E--> 4870 cccgacggcg gactgccaa ggacccat ctcacccat ggatcgccct tttccaggcc
4871 780
E--> 4872 tcccaacccga gttacgcgccc gggggcgccc ggcacgcgca tgccggccca gggcggtggc

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001

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Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF3\11212001\I988384.raw

4873 840
E--> 4874 gccggcggca gggactatga ctcggagacg agcagggccg ccgtgcccgg gagccgcaga
4875 900
E--> 4876 tacggccccca cgcgccggcgg cgaaccctgc gcaccccgcg cacagggtccg gcagacccaag
4877 960
E--> 4878 ggccgccagg gcgcgcgagg ctcgtcgtaa ggacgcccga cggggccgtta g
4879 1011
4930 <210> SEQ ID NO: 28
4931 <211> LENGTH: 969
4932 <212> TYPE: DNA
4933 <213> ORGANISM: Streptomyces venezuelae
4935 <400> SEQUENCE: 28
E--> 4936 atggcatttt ccccgccagg cggccgacac gagctcggtc agaacttcct cgtcgaccgg
4937 60
E--> 4938 tcagtgatcg acgagatcga cggcctggtg gccaggacca agggtccgat actggagatc
4939 120
E--> 4940 ggtccgggtg acggcgccct gaccctgccc ctgagcaggc acggcaggcc gatcaccgccc
4941 180
E--> 4942 gtcgagctcg acggccggcg cgccgcgcgc ctcggtgcgc gcaccccccgg tcatgtgacc
4943 240
E--> 4944 gtggcgcacc acgacttcct gcagtaccccg ctgcccgcga acccgcatgt ggtcgtcgcc
4945 300
E--> 4946 aacgtccctt tccatctgac gacggcgatc atgcggccgc tgctcgacgc ccagcactgg
4947 360
E--> 4948 cacaccgcgc tcctcctcgt ccagtggag gtcgcccggc gcccggccgg cgtcggcggg
4949 420
E--> 4950 tcgacgctgc tgacggccgg ctggcgccccc tggtacgagt tcgacctgca ctcccgggtc
4951 480
E--> 4952 cccgcgcggg cttccgtcc gatgccgggc gtggacggag gagtactggc catccggcgg
4953 540
E--> 4954 cgggtccgcgc cgctcggtgg ccaggtgaag acgtaccagg acttcgtacg ccaggtgttc
4955 600
E--> 4956 accggcaagg ggaacgggct gaaggagatc ctgcggccga cggggcggat ctgcgcgg
4957 660
E--> 4958 gacctggcga cctggctgcg gagaaacgag atctcgccgc acgcgctgcc caaggacctg
4959 720
E--> 4960 aagcccgggc agtgggcgtc gctgtggag ctgaccggcg gcacggccga cggatccccc
4961 780
E--> 4962 gacggtaacgg cgggcgggtgg cgccgcggga tcgcacgggg cggctcggtt cggggccgg
4963 840
E--> 4964 cacccggggcg gccgggtgtc cgcgagccgg cggggcgtgc cgcaaggcgcg ggcggccgg
4965 900
E--> 4966 gggcatgcgg tacggagctc cacggggacc gagccgaggt ggggcagggg gcggggcgg
4967 960
E--> 4968 agcgcgtga
4969 969
6517 <210> SEQ ID NO: 34
6518 <211> LENGTH: 4689
6519 <212> TYPE: DNA

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

6520 <213> ORGANISM: Streptomyces venezuelae
 6522 <400> SEQUENCE: 34
 E--> 6523 atggcgaaca acgaagacaa gctccgcgac tacctaaggc gcgtcaccgc cgagctgcag
 6524 60
 E--> 6525 cagaacacca ggcgtctcg cgagatcgag ggacgcacgc acgagccgtt ggcgatcg
 6526 120
 E--> 6527 ggcatggcct gccgcctgcc gggcggtgtc gcctcgcccc aggacctgtg gcagctgg
 6528 180
 E--> 6529 gccggggacg gggacgcgat ctcggagttc ccgcaggacc gcggctggga cgtggagg
 6530 240
 E--> 6531 ctgtacgacc ccgacccgga cgcgtccggc aggacgtact gccggtccgg cggattcctg
 6532 300
 E--> 6533 cacgacgccc gcgagttcga cgcgcacttc ttcggatct cgcgcgcga gcccctcgcc
 6534 360
 E--> 6535 atggacccgc acgacgcact gtccctcacc accgcgtggg aggcgatcga gagcgcgg
 6536 420
 E--> 6537 atcgacccga cggccctgaa gggcagcggc ctcggcgat tcgtcggcgg ctggcacacc
 6538 480
 E--> 6539 ggctacacct cggggcagac caccgcgtg cagtcgcggc agctggagg ccacctgg
 6540 540
 E--> 6541 agcggcgcgg cgctggcgtt cctgtccggc cgtatcggt acgtcctcg tacggacgg
 6542 600
 E--> 6543 cccggccctga ccgtggacac ggcctgctcg tcctcgctgg tcggccctgca cctcgccgt
 6544 660
 E--> 6545 caggccctcc gcaaggcgaa gtgcgacatg gcctcgccc gtgggtcac ggtcatgccc
 6546 720
 E--> 6547 aacgcggacc tggtcgatc gttcagccgg cagcgcggc tggccgcgg cggccgg
 6548 780
 E--> 6549 aaggcggtcg ccacccgcgc ggacggcttc ggcccccggc agggcgccgg agtccctg
 6550 840
 E--> 6551 gtggagcgcc tgcggacgc cgcgcacac ggacaccgg tcctcgccgt cgtccgcgg
 6552 900
 E--> 6553 agcgcggta accaggacgg cgcgcacac ggccctcacgg ctccgcacgg gcctcc
 6554 960
 E--> 6555 cagcgcgtca tccgcacggc cctggcgac gcccggctcg cgccgggtga cgtggac
 6556 1020
 E--> 6557 gtcgaggcgac acggcacggg cacgcggctc ggcgaccggc tcgaggcgca gc
 6558 1080
 E--> 6559 gcccacatcg gcaaggagaa gagcagcgaa cagccgctga ggctggcgc gttgaag
 6560 1140
 E--> 6561 aacatcgccggc acacgcaggc cgcggccgt gtcgcagggt tcacatcgat g
 6562 1200
 E--> 6563 atgcgcacacg gactgctgcc gaagacgctg cacgtcgacg agccctcgga
 6564 1260
 E--> 6565 tggtcggcgg gcacgggtgg actcctcacc gaggccgtcg actggccgg
 6566 1320
 E--> 6567 ggcgggctgc gccgcgcggc tgcggatca gcgggacgaa cgcgcacgt
 6568 1380
 E--> 6569 gtcctggagg agggcccgcc ggtcgaggac tccccggccg tcgagccgccc
 ggccgggtggc

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

6570	1440
E--> 6571	ggtgtggtgc cgtggccggt gtccgcgaag actccggccg cgctggacgc ccagatcggg
6572	1500
E--> 6573	cagctcgccg cgtacgcgga cggtcgtacg gacgtggatc cggcggtggc cgccccgcgc
6574	1560
E--> 6575	ctggtcgaca gccgtacggc gatggagcac cgcgcggtcg cggtcggcga cagccggag
6576	1620
E--> 6577	gcactgcggg acgcctgcg gatgccggaa ggactggta cgcgcacgtc ctggacgtg
6578	1680
E--> 6579	ggccgggtgg cgttcgtctt cccggccag ggcacgcagt gggccggcat gggcgccgaa
6580	1740
E--> 6581	ctccttgaca gtcaccgga gttcgtgcc tcgatggcc aatgcgagac cgcgcctcc
6582	1800
E--> 6583	cgctacgtcg actggctct tgaagccgtc gtccgacagg aaccggcgc acccacgtc
6584	1860
E--> 6585	gaccgcgtcg acgtcgtcca gcccgtgacc ttgcgtgtca tggctcgct ggcgaaggtc
6586	1920
E--> 6587	tggcagcacc acggcatcac cccccaggcc gtcgtggcc actcgcaggg cgagatcgcc
6588	1980
E--> 6589	gcccgtacg tcgcccgtgc actcaccctc gacgacgccc cccgcgtcgt caccctgcgc
6590	2040
E--> 6591	agcaagtcca tcgcccggca ctcgcggc aaggccggca tgatctccct caccctcgac
6592	2100
E--> 6593	gaggccggccg tcctgaagcg actgagcgac ttgcacggac tctccgtcgc cgccgtcaac
6594	2160
E--> 6595	ggccccaccc caacctgtgt ctccggcgtc ccgacccaga tcgaggaact cgccccgacc
6596	2220
E--> 6597	tgcgaggccg acggcgtccg tgcgcggatc atcccggtcg actacgcctc ccacagccgg
6598	2280
E--> 6599	cagggtcgaga tcatcgagaa ggagctggcc gaggtcctcg ccggactcgc cccgcaggct
6600	2340
E--> 6601	ccgcacgtgc cggtttctc caccctcgaa ggcacctgga tcaccgagcc ggtgctcgac
6602	2400
E--> 6603	ggcacctact ggtaccgcaa cctgcgcct cgcgtggct tcgcggccgc cgtggagacc
6604	2460
E--> 6605	ttggccgttg acggcttcac ccacttcatac gaggtcagcg cccacccgt cctcaccatg
6606	2520
E--> 6607	accctccccg agaccgtcac cggcctcgcc accctccgccc gcgaacaggg aggccaggag
6608	2580
E--> 6609	cgtctggtca cctcaactcgc cgaaggctgg gccaacggcc tcaccatcga ctggcgccc
6610	2640
E--> 6611	atcctccccca ccgcaacccgg ccaccacccc gagctccccca cctacgcctt ccagaccgag
6612	2700
E--> 6613	cgcttctggc tgcagagctc cgcgcacc accgcgcggc acgactggcg ttaccgcgtc
6614	2760
E--> 6615	gagtggaaagc cgctgacggc ctccggccag gcgacgtgt ccggccgggtg gatcgtcgcc
6616	2820
E--> 6617	gtcggggagcg agccagaagc cgagctgctg ggcgcgtga aggccgcggg agcggaggtc
6618	2880

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

```

E--> 6619 gacgtactgg aagccggggc ggacgacgac cgtgaggccc tcgccgccc gctcaccgca
6620 2940
E--> 6621 ctgacgaccg gcgacggctt caccggcgtg gtctcgctcc tcgacgacct cgtgccacag
6622 3000
E--> 6623 gtcgcctggg tgcaggcact cggcgacgcc ggaatcaagg cgcccctgtg gtccgtcacc
6624 3060
E--> 6625 cagggcgccg tctccgtcgg acgtctcgac accccccccg acccccggccg ggccatgctc
6626 3120
E--> 6627 tggggcctcg gccgcgtcgt cgcccttgag caccccgaaac gctggccgg cctcgtcgcac
6628 3180
E--> 6629 ctccccgeccc agccccatgc cgccgcctc gcccacctcg tcacccgact ctccggcgcc
6630 3240
E--> 6631 accggcgagg accagatcgc catccgcacc accggactcc acgccccggc cctcgcccgcc
6632 3300
E--> 6633 gcacccctcc acggacgtcg gcccacccgc gactggcagc cccacggcac cgtcctcata
6634 3360
E--> 6635 accggcgccca ccggagccct cggcagccac gccgcacgct ggtggccca ccacggagcc
6636 3420
E--> 6637 gaacacctcc tcctcgtag ccgcagcggc gaacaagccc ccggagccac ccaactcacc
6638 3480
E--> 6639 gccgaactca ccgcacatcggg cgcccgctc accatcgccg cctgcgacgt cgccgacccc
6640 3540
E--> 6641 cacccatgc gcacccctct cgacgcattc cccgcccaga cgccctcac cgccgtcgctc
6642 3600
E--> 6643 cacaccgccc ggcacccggg cggcagatccg ctggacgtca ccggcccgga ggacatcgcc
6644 3660
E--> 6645 cgcacccatgg ggcgcaagac gagcggcgcc gaggtcctcg acgacctgct cgcggcact
6646 3720
E--> 6647 cgcgtggacg cttcgtagt ctactcctcg aacgcccggg tctggggcag cggcagccag
6648 3780
E--> 6649 ggcgtctacg cggcgccaa cgcccacctc gacgcgtcg cgcccccggc cgcgcggccgg
6650 3840
E--> 6651 ggcgagacgg cgacccgtcg cgcctggggc ctctggggc ggcacggcat gggccggggc
6652 3900
E--> 6653 gccgacgacg cgtactggca ggcgtcgcc atccgtccga tgagccccga cgcgcctcg
6654 3960
E--> 6655 gacgaactgg ccaaggccct gagccacgac gagaccttcg tcgcgtggc cgatgtcgac
6656 4020
E--> 6657 tgggagcggt tcgcgtccgc gttcacggtg tcccgatcca gccttctgct cgacggcgctc
6658 4080
E--> 6659 cccggggccc ggcaggcgct cgccgcaccc gtcggtgccc cggctccgg cgacgcgc
6660 4140
E--> 6661 gtggcgccga cgggcagtc gtcggcgctg gccgcgtatca ccgcgtccc cgagcccgag
6662 4200
E--> 6663 cgccggccgg cgctcctcac ctcgtccgt acccacgcgg cggccgtact cggccattcc
6664 4260
E--> 6665 tcccccgacc gggtgccccc cggccgtgcc ttcaccgagc tcggcttcga ctcgtgacg
6666 4320
E--> 6667 gccgtgcagc tccgcaacca gctctccacg gtggtcggca acaggctccc cgccaccacg

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
 TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
 Output Set: N:\CRF3\11212001\I988384.raw

```

6668 4380
E--> 6669  gtcttcgacc acccgacgcc cgccgcactc gccgcgcacc tccacgaggc gtacctcgca
6670 4440
E--> 6671  ccggccgagc cggccccgac ggactggag gggcggtgc gccggccct ggccgaactg
6672 4500
E--> 6673  cccctcgacc ggctgcggga cgcgggggtc ctgcacacccg tcctgcgcct caccggcatc
6674 4560
E--> 6675  gagcccggc cgggttccgg cggttcggac ggcggcggccg ccgaccctgg tgcggagccg
6676 4620
E--> 6677  gaggcgtcga tcgacgacct ggacgcccgg gccctgatcc ggatggctct cggcccccgt
6678 4680
E--> 6679  aacacctgaa
6680 4689
6885 <210> SEQ ID NO: 36
6886 <211> LENGTH: 4041
6887 <212> TYPE: DNA
6888 <213> ORGANISM: Streptomyces venezuelae
6890 <400> SEQUENCE: 36
E--> 6891  atgacgagtt ccaacgaaca gtttgtggac gctctgcgcg cctctctcaa ggagaacgaa
6892 60
E--> 6893  gaactccgga aagagagccg tcgcggggcc gaccgtcggc aggagccat ggcatcgtc
6894 120
E--> 6895  ggcatgagct gccggttcgc gggcgaatc cggtcccccg aggacctctg ggacgcccgtc
6896 180
E--> 6897  gccgcggggca aggacctggt ctccgaggta ccggaggagc gcggctggga catcgactcc
6898 240
E--> 6899  ctctacgacc cggtgcccg ggcgaaggac acgacgtacg tccgcaacgc cgcgttcc
6900 300
E--> 6901  gacgacgcccgg ccggattcga cgcggccttc ttccggatct cgcgcgcga ggccctcgcc
6902 360
E--> 6903  atggacccgc agcagcggca gtcctcgaa gcctcctggg aggtcttcga gcgggcccggc
6904 420
E--> 6905  atcgaccccg cgtcggtccg cggcaccgac gtcggcgtgt acgtggctg tggctaccag
6906 480
E--> 6907  gactacgcgc cggacatccg ggtcgccccc gaaggcaccc gcggttacgt cgtcaccggc
6908 540
E--> 6909  aactcctccg ccgtggccctc cggcgcatac gctactccc tcggcctggaa gggacccggc
6910 600
E--> 6911  gtgaccgtgg acacggcgtg ctcccttcg ctcgtcgccc tgcacctcgc cctgaagggc
6912 660
E--> 6913  ctgcggaacg ggcactgctc gacggcactc gtggcggcgtg tggccgtct cgcgacgccc
6914 720
E--> 6915  ggcgcgttca tcgagttcag cagccagcag gccatggccg ccgacggccg gaccaagggc
6916 780
E--> 6917  ttccgcctcg cggcggacgg ctcgcctgg ggcgagggcg tcgcccgtact ctcctcgaa
6918 840
E--> 6919  cggctctccg acgcgcggccg caaggccac cgggtcctgg ccgtcgtcgc cggcagcgc
6920 900
E--> 6921  atcaaccagg acggcgcgag caacggcctc acggctccgc acggccctc ccagcagcac

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

```

6922 960
E--> 6923 ctgatccgcc aggcctggc cgacgcgcgg ctcacgtcga gcgacgtgga cgtcgtggag
6924 1020
E--> 6925 ggccacggca cggggacccg tctcgccgac ccgatcgagg cgccaggcgct gctcgccacg
6926 1080
E--> 6927 tacgggcagg ggcgcgcccc gggcagccg ctgcggctgg ggacgctgaa gtcgaacatc
6928 1140
E--> 6929 gggcacacgc aggccgcttc gggtgtcgcc ggtgtcatca agatggtgca ggcgctgcgc
6930 1200
E--> 6931 cacgggggtgc tgccgaagac cctgcacgtg gacgagccga cggaccaggt cgactggtcg
6932 1260
E--> 6933 gccgggttcgg tcgagctgct caccgaggcc gtggactggc cggagcggcc gggccggctc
6934 1320
E--> 6935 cgcgcggcgg gcgtctccgc gttcggcgtg ggcgggacga acgcgcacgt cgtcctggag
6936 1380
E--> 6937 gaggccccgg cggtcgagga gtcccctgcc gtcgagccgc cggccgggtgg cggcgtggtg
6938 1440
E--> 6939 ccgtggccgg tgtccgcgaa gacctcgcc gcactggacg cccagatcgg gcagctcgcc
6940 1500
E--> 6941 gcatacgcgg aagaccgcac ggacgtggat cggccgggtgg cggccgcgc cctggtcgac
6942 1560
E--> 6943 agccgtacgg cgatggagca cgcgcggcgc gcggtcggcg acagccggga ggcactgcgg
6944 1620
E--> 6945 gacgcctgc ggatgccgga aggactggta cggggcacgg tcaccgatcc gggccgggtg
6946 1680
E--> 6947 gcgttcttc tccccggcca gggcacgcag tggggccgca tgggcgcga actcctcgac
6948 1740
E--> 6949 agctcacccg aattcgccgc cgccatggcc gaatgcgaga ccgcactctc cccgtacgtc
6950 1800
E--> 6951 gactggtctc tcgaagccgt cgtccgacag gctcccacgg caccgacact cgaccgcgtc
6952 1860
E--> 6953 gacgtcgtcc agcccggtcac cttcgccgtc atggctccc tgcgcaggat ctggcagcac
6954 1920
E--> 6955 cacggcatca ccccgaggc cgtcatggc cactcccagg gcgagatcgc cgcgcgtac
6956 1980
E--> 6957 gtcgcgggtg ccctcacccct cgacgacgcc gctcgtgtcg tgaccctccg cagcaagtcc
6958 2040
E--> 6959 atcgcgcgcc acctcgccgg caagggcggc atgatctccc tcgcctcag cgaggaagcc
6960 2100
E--> 6961 acccggcagc gcatcgagaa cctccacggc ctgtcgatcg ccgcgtcaa cgggcctacc
6962 2160
E--> 6963 gccaccgtgg ttccggcga ccccacccag atccaagaac ttgctcaggc gtgtgaggcc
6964 2220
E--> 6965 gacggcatcc ggcgcacggat catccccgtc gactacgcct cccacagcgc ccacgtcgtc
6966 2280
E--> 6967 accatcgaga acgaactcgc cgacgtcctg gcgccgttgc ccccccagac accccaggtc
6968 2340
E--> 6969 cccttcttc ccaccctcga aggcacctgg atcaccgaac ccgcctcga cggcggctac
6970 2400

```

RAW SEQUENCE LISTING DATE: 11/26/2001
 PATENT APPLICATION: US/09/988, 384 TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
 Output Set: N:\CRF3\11212001\I988384.raw

E--> 6971 tggtaccgca acctccgcca tcgtgtggc ttgcggccgg ccgtcgagac cctcgccacc
 6972 2460
 E--> 6973 gacgaaggct tcacccactt catcgaggtc agcgcccacc ccgtcctcac catgaccctc
 6974 2520
 E--> 6975 cccgacaagg tcaccggcct ggccaccctc cgacgcgagg acggcggaca gcaccgcctc
 6976 2580
 E--> 6977 accacctccc ttgcccgagge ctggccaac ggcctcgccc tcgactggc ctccctcctg
 6978 2640
 E--> 6979 cccgcacgg gcgcaccttag cccgcgcgtc cccgacctcc cgacgtacgc cttccagcac
 6980 2700
 E--> 6981 cgctcgtaact ggatcagccc cgcggtcccc ggcgaggcgc cggcgcacac cgcttccggg
 6982 2760
 E--> 6983 cgcgaggccg tcgcccggac ggggctcgcg tggggcccggt gtgccgagga cctcgacgag
 6984 2820
 E--> 6985 gagggccggc gcagcgccgt actcgcatg gtatgcggc aggccgcctc cgtgctccgg
 6986 2880
 E--> 6987 tgcgactcgccgacaa cccgcgtac cgcgcgtgc gggagatcggtt cttcgactcg
 6988 2940
 E--> 6989 ctgaccgcggc tcgacttccg caaccgcgtc aaccggctga ccggctcca gctgccgccc
 6990 3000
 E--> 6991 accgtcggtt tccagcaccc gacgcccgtc ggcgtcgccg agcgcacatcg cgcgcgactg
 6992 3060
 E--> 6993 gcccggcggaa actggggccgt cggcggccgt tcggatcacg agcaggcggaa ggaggagaag
 6994 3120
 E--> 6995 gcccggcgtc cggcggggggc ccgcgtccggg gcccggccgtc ggcgcggcgc cggatgttc
 6996 3180
 E--> 6997 cgcgcctgt tccggcaggc cgtggaggac gaccggatcg gcgagttccct cgacgtccctc
 6998 3240
 E--> 6999 gcccggcgtc cccgcgttc cccgcgttc gcctcgcccg aggccgtctc ggagcggcgtc
 7000 3300
 E--> 7001 gaccgggtgc tgctcgccgg cggtccgacg gaccggggcgg aaggccgtgc cggtctcg
 7002 3360
 E--> 7003 ggctgcacccg gcaccgcggc gaacggcggc ccgcacgact tcctcggtctc cagcaccc
 7004 3420
 E--> 7005 ttccaggagg agcgggactt cctcgccgtc cctctcccg gctacggcac gggtaacgggc
 7006 3480
 E--> 7007 accggcacgg ccctcctccc ggccgatctc gacaccgcgc tcgacgccc gggccggcgg
 7008 3540
 E--> 7009 atcctccggg cccgcggggc cgcgcgttc gtcctgtcg ggcactccgg cggcgcctcg
 7010 3600
 E--> 7011 ctcgcgcacg agctggcatt cccgcgttc cctctcccg gctacggcac gggccggatc
 7012 3660
 E--> 7013 gtcctgtcg acccctatcc gccggccat caggagccca tcgaggtgtg gagcaggcag
 7014 3720
 E--> 7015 ctggcgagg gcctgttcgc gggcgagctg gagccgtatgt ccgtatgcgcg gctgctggcc
 7016 3780
 E--> 7017 atggggccgggt acgcgcgggtt cctcgccggc ccgcggccgg gcccgcacg cgcgcctcg
 7018 3840
 E--> 7019 cttctggtcc gtgcctccga accgcgtggc gactggcagg aggagcgggg cgcactggcgt

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

```

7020 3900
E--> 7021 gcccactggg accttccgca caccgtcgcg gacgtgccgg gcgaccactt cacgatgatg
7022 3960
E--> 7023 cgggaccacg cgccggccgt cgccgaggcc gtcctctcct ggctcgacgc catcgagggc
7024 4020
E--> 7025 atcgaggggg cgggcaagtg a
7026 4041
7205 <210> SEQ ID NO: 38
7206 <211> LENGTH: 1251
7207 <212> TYPE: DNA
7208 <213> ORGANISM: Streptomyces venezuelae
7210 <400> SEQUENCE: 38
E--> 7211 gtgcgccgt a cccagcagg aacgaccgct tctccccgg tactcgacct cggggccctg
7212 60
E--> 7213 gggcaggatt tcgcggccga tccgtatccg acgtacgcga gactgcgtgc cgagggtccg
7214 120
E--> 7215 gcccacccggg tgcgcacccc cgagggggac gaggtgtggc tggtcgtcgg ctacgaccgg
7216 180
E--> 7217 gcgccggccgg tcctcgccga tccccgggttc agcaaggact ggcgcaactc cacgactccc
7218 240
E--> 7219 ctgaccgagg ccgaggccgc gctcaaccac aacatgctgg agtccgaccc gccgcggcac
7220 300
E--> 7221 acccggtgc gcaagctggt ggcccggtgag ttcaccatgc gccgggtcga gttgctgcgg
7222 360
E--> 7223 ccccggtcc aggagatcgt cgacgggctc gtggacgcca tgctggccgc gcccgacggc
7224 420
E--> 7225 cgccgcgtatc tgatggagtc cctggcctgg ccgctgccga tcaccgtatc ctccgaactc
7226 480
E--> 7227 ctcggcgtgc ccgagccgga ccgcgcggcc ttccgcgtct ggaccgacgc ctgcgtttc
7228 540
E--> 7229 ccggacgatc ccgcccaggc ccagaccgac atggccgaga tgagcggcta tctctccgg
7230 600
E--> 7231 ctcatcgact ccaagcgcgg gcaggacggc gaggacctgc tcagcgcgtc cgtcggacc
7232 660
E--> 7233 agcgacgagg acggctcccg gctgacccctc gaggagctgc tcggtatggc ccacatcccg
7234 720
E--> 7235 ctcgtcgccgg ggcacgagac cacggtaat ctgatgccaa acggcatgta cgcgcgtctc
7236 780
E--> 7237 tcgcaccccg accagctggc cgccctgcgg gcggacatga cgctttggc cggcgcgggtg
7238 840
E--> 7239 gaggagatgt tgcgctacga gggcccggtg gaatccgcga cctaccgtt cccggtcgag
7240 900
E--> 7241 cccgtcgacc tggacggcac ggtcatcccg gccggtgaca cggtcctcgat cgtcctggcc
7242 960
E--> 7243 gacgcccacc gcaccccccga gcgcttcccg gacccgcacc gcttcgacat cgcgcgggac
7244 1020
E--> 7245 accgcccggcc atctcgccctt cggccacggc atccacttct gcatcggcgc ccccttggcc
7246 1080
E--> 7247 cggttggagg cccggatcgc cgtccgcgc cttctcgaaac gctgcccggaa cctcgccctg

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

```

7248 1140
E--> 7249  gacgtctccc cggcgaaact cgtgtggtat ccgaaccga tgattgcgg gctcaaggcc
7250 1200
E--> 7251  ctggcgatcc gctggcgccg aggacggag gcggccgcgtt a
7252 1251
7313 <210> SEQ ID NO: 40
7314 <211> LENGTH: 2787
7315 <212> TYPE: DNA
7316 <213> ORGANISM: Streptomyces venezuelae
7318 <400> SEQUENCE: 40
E--> 7319  atgaatctgg tggAACGCGA cggggagata gccccatctca gggccgttct tgacgcattcc
7320 60
E--> 7321  gccgcagggt acgggacgct cttactcgtc tccggaccgg cggcagcgg gaagacggag
7322 120
E--> 7323  ctgctgcggc cgctccgcg gctggccgc gagcgggaga ccccccgtctg gtcgggtccgg
7324 180
E--> 7325  ggcgtgcggc gtgaccgcga catccccctg ggcgttctt gccagttact cgcagcgcgc
7326 240
E--> 7327  gaacaacacg gtgcccacac ctccgcgtc cgcgacctgc tggacgcgcgc ctgcggcgg
7328 300
E--> 7329  gccggaaacc tcacccccc cggcgcgcg cgcgtccgcg tcgacgagac acaccgcctg
7330 360
E--> 7331  cacgactggc tgctctccgt ctccgcgc accccgttcc tcgtgcgcgt cgacgacctg
7332 420
E--> 7333  acccacgcgc acaccgcgtc cctgaggttc ctccgtact ggcgcgcgc ccacgaccag
7334 480
E--> 7335  ggccgcgcgc gttcgcat gaccgagcgg gcctcgacgc ggcgcggata cgggtgttc
7336 540
E--> 7337  cgcgcgcgc tgctccgcgc gccgcactgc cgcaacatgt ggctctccgg gttcccccc
7338 600
E--> 7339  agcggggta cccactac tacggccccc aggccgcga gcggcggcc
7340 660
E--> 7341  cccgcgtacc acgcgacgc cggcgaaac cgcgtctcc tgccggcgat gaccaggac
7342 720
E--> 7343  cggcaggcct cccacaccac cctcgccgcg gccggcgccg acgagccgt ccacggcgcac
7344 780
E--> 7345  gccttcgcgc aggccgtct cgcactgc caccgcgcg cgcggccac actggagacc
7346 840
E--> 7347  gcccgcgtgc tcgcggctt cgaacagtcc gaccgcgtcc tggtgagcgc gtcacggga
7348 900
E--> 7349  acgacccgcg cccgcgtcga ggcgcacatc caggagctcg cgcgcgcgc actggagacc
7350 960
E--> 7351  gaggacggca ccctggaca gcccgcgtc cgcgaggccg ccctccagga cctgcggcc
7352 1020
E--> 7353  ggcgacgcgc cccactgc cggcgccgc gcgagcgc tgcaccggga cggcgcgcac
7354 1080
E--> 7355  gaggacaccg tggccgcgc cctgcgtggc ggcggcgcc cgcgcgtcc ctggcgctg
7356 1140
E--> 7357  cccctgcgtc aacggggcgc gcagcaggcc ctgttcgcac accgactcga cgacgccttc

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

7358	1200
E--> 7359	cggatcctcg agttcgccgt gcggtcgagc accgacaaca cccagctggc ccgcctcgcc
7360	1260
E--> 7361	ccacacctgg tcgcggcctc ctggcggatg aacccgcaca tgacgaccgg ggccctcgca
7362	1320
E--> 7363	ctcttcgacc ggctcctgag cggtgaactg cgcgcgcagcc acccggtcat ggccctgatc
7364	1380
E--> 7365	cgctgcctcg tctggtacgg gcggctgccc gaggccgccc acgcgctgtc ccggctgcgg
7366	1440
E--> 7367	ccccagtcgg acaacgatgc cttggagctg tcgctcaccc ggatgtggct cgccggcgtg
7368	1500
E--> 7369	tgcgcgcgc tcctggagtc cctgcgggcc acgcgcggagc cggagcgggg tcccgcccc
7370	1560
E--> 7371	gtacggctcg cgccgcggac gaccgcgtc caggcccagg ccggcgtctt ccagcggggc
7372	1620
E--> 7373	ccggacaaacg ctcggtcgc gcaggccgaa cagatcctgc agggctgccc gctgtcggag
7374	1680
E--> 7375	gagacgtacg aggccctgga gacggccctc ttggctctcg tccacgcga ccggctcgac
7376	1740
E--> 7377	cggggcgtgt tctggtcgga cgcctgtc gccgaggccg tggagcggcg gtcgctcggc
7378	1800
E--> 7379	tgggaggcgg tcttcggccgc gaccggcccg atgatcgcga tccgctcgg cgacctcccg
7380	1860
E--> 7381	acggcgcggg agcggggccga gctggcgctc tcccacgcgg cgccggagag ctggggcctc
7382	1920
E--> 7383	gcccgtggca tgcccccttc cgcgtgtcgt ctcgcgtcga cggaggccgg cgagtacgaa
7384	1980
E--> 7385	caggcggagc gggcctcgc gcagccggtg ccggacgcga tggactcgcgac gcccacggc
7386	2040
E--> 7387	atggagtaa tgcacgcgg gggccgtac tggctggcga cggccggct gcacgcggcg
7388	2100
E--> 7389	ctggcgagt tcatgtctcg cggggagatc ctggcgagct ggaacctcga ccagccctcg
7390	2160
E--> 7391	atcggtccct ggccggaccc cgcgcggag gtgtacctgc ggctcggcaa ccgcacagaag
7392	2220
E--> 7393	gccaggccgc tggccgaggc ccagctcgcc ctggcggccgc ccggcgctc ccgcacccgg
7394	2280
E--> 7395	ggtctcaccc tgcgggtcct ggccggcccg gtggacggcc agcaggccga gcggctgcac
7396	2340
E--> 7397	gccaggccgg tcgacatgtc gcacgacagc ggccggccgc tcgaacacgc ccgcgcgtc
7398	2400
E--> 7399	gccgggatga gccgcacca gcaggcccag gggacaact accggggcag gatgacggcg
7400	2460
E--> 7401	cggctcgccg ggcacatggc gtggcctgc ggccgttacc cgctggccga ggagatcgtg
7402	2520
E--> 7403	ccggccgcgc gcggccgcgc ggccaaaggcg gtgagcacgg agctggaaact gccggccgc
7404	2580
E--> 7405	ccggacgtcg ccctgtctcg ggaggccgaa cggccgggtgg cggccctggc agcccgagga
7406	2640

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:29

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

E--> 7407 ttgacgaacc gccagatagc ggcggctc tgcgtcaccg cgagcacggt cgaacagcac
7408 2700
E--> 7409 ctgacgcgcg tctaccgcaa actgaacgtg acccgccgag cagacctccc gatcagcctc
7410 2760
E--> 7411 gcccaggaca agtccgtcac ggcctga
7412 2787
7537 <210> SEQ ID NO: 42
7538 <211> LENGTH: 27
7539 <212> TYPE: DNA
7540 <213> ORGANISM: Streptomyces venezuelae
7542 <400> SEQUENCE: 42
E--> 7543 cccgaattcg ccgcgcgcatt ggccgaa
7544 27
7546 <210> SEQ ID NO: 43
7547 <211> LENGTH: 35
7548 <212> TYPE: DNA
7549 <213> ORGANISM: Streptomyces venezuelae
7551 <400> SEQUENCE: 43
E--> 7552 gtgatgcattc ggctcggcga cggcccaagt ccgct
7553 35
7555 <210> SEQ ID NO: 44
7556 <211> LENGTH: 45
7557 <212> TYPE: DNA
7558 <213> ORGANISM: Streptomyces venezuelae
7560 <400> SEQUENCE: 44
E--> 7561 atgcattcacc accaccacca ctgagggggc gggcaagtga ccgac
7562 45
7564 <210> SEQ ID NO: 45
7565 <211> LENGTH: 33
7566 <212> TYPE: DNA
7567 <213> ORGANISM: Streptomyces venezuelae
7569 <400> SEQUENCE: 45
E--> 7570 gggtcctagag ctgcaccggc gggtcgttagc gga
7571 33
7573 <210> SEQ ID NO: 46
7574 <211> LENGTH: 27
7575 <212> TYPE: DNA
7576 <213> ORGANISM: Streptomyces venezuelae
7578 <400> SEQUENCE: 46
E--> 7579 gaattcatcg agggggcggg caagtga
7580 27

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/988,384

DATE: 11/26/2001
TIME: 15:23:30

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\11212001\I988384.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:3557 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
M:332 Repeated in SeqNo=6
L:3836 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:7
M:254 Repeated in SeqNo=7
L:3944 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:9
M:254 Repeated in SeqNo=9
L:4070 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:11
M:254 Repeated in SeqNo=11
L:4152 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:13
M:254 Repeated in SeqNo=13
L:4244 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:15
M:254 Repeated in SeqNo=15
L:4344 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:17
M:254 Repeated in SeqNo=17
L:4412 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:19
M:254 Repeated in SeqNo=19
L:4524 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:21
M:254 Repeated in SeqNo=21
L:4632 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:23
M:254 Repeated in SeqNo=23
L:4846 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:26
M:254 Repeated in SeqNo=26
L:4936 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:28
M:254 Repeated in SeqNo=28
L:6523 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:34
M:254 Repeated in SeqNo=34
L:6891 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:36
M:254 Repeated in SeqNo=36
L:7211 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:38
M:254 Repeated in SeqNo=38
L:7319 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:40
M:254 Repeated in SeqNo=40
L:7543 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:27 SEQ:42
L:7552 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:35 SEQ:43
L:7561 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:45 SEQ:44
L:7570 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:33 SEQ:45
L:7579 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:27 SEQ:46
L:7588 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:31 SEQ:47
L:7597 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:30 SEQ:48
L:7606 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:31 SEQ:49
L:7615 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:41 SEQ:50
L:7624 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:32 SEQ:51
L:7633 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:52
M:254 Repeated in SeqNo=52